



**GATEWAY
COMMUNITY COLLEGE**

A MARICOPA COMMUNITY COLLEGE

STUDENT CATALOG 2023-2024



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President's Welcome

Welcome to GateWay Community College, home of the Geckos, and one of the ten colleges in the Maricopa County Community College District. In 2023, GateWay celebrated its 55th Anniversary of serving the community and helping thousands of students like you achieve your educational and career goals.

GateWay offers over 160 high-quality programs in various modalities across the Valley at five different locations. Whether you want to go directly into the workforce, transfer to a university, or take classes for your personal interest, you can enroll in courses, certificates and degrees offered at the following sites:

- Washington Street campus (40th Street and Washington)
- Central City (12th Street and Buckeye)
- Southwest Skills Center (on Estrella Mountain Community College's campus at Dysart and Thomas Road)
- 18th Street (18th Street and Van Buren)
- City of Surprise (N. Civic Center Plaza)



To ensure that you are ready to enter the workforce or start your own business, GateWay offers a variety of experiential learning opportunities for students in virtual reality and simulation lab spaces, the free community healthcare HUG Clinic, salon and spa service sites, automotive training facilities, a student business incubator, as well as the largest makerspace in the southwest: The Phoenix Forge. We also offer childcare at our Children's Learning Center on the Washington Street campus.

I encourage you to become involved with the college outside your specific educational goal. Through service learning, volunteer opportunities, participating in a club, or attending an event, you will benefit from engaging with the college in ways that you are passionate about. You can also support GateWay's four athletics teams (men's and women's soccer, men's baseball, and women's softball) and student leadership organizations.

At GateWay, we truly believe that you are the primary reason we exist. On behalf of the faculty and staff, I thank you for choosing GateWay. We feel honored that you have selected GateWay among the many other choices. I assure you that friendly and knowledgeable faculty and staff members stand ready to assist you in your pursuit of higher education.

Go Geckos!

Fondly,

Dr. Amy S. Diaz

President

About GateWay



History of GateWay

It all began in the shoe department of the former Korrick's Department Store. Passersby gawked through the large display windows where mannequins had been replaced by live keypunch operators. Coat racks and cash registers made way for school desks and lecture podiums as Maricopa Technical College began to build a name for itself in 1968. Student orientation was held in a nearby movie theater. In 1987, the name changed to GateWay Community College to better convey the comprehensive curricular offerings of the College and to reflect the physical location change to 40th and Washington streets in the GateWay corridor.

Around the same time the Maricopa Skill Center became a division of the newly named GateWay Community College after being a division of Rio Salado College for nearly 20 years. The Maricopa Skill Center offered several clock hour programs that provided students with training for quick entry into the workforce.

By 2016, GateWay Community College and Maricopa Skill Center fully aligned operations, Maricopa Skill Center adopted the GateWay Community College name and created a unit called Workforce Innovation and Strategic Partnerships, with the instructional pieces of the former Maricopa Skill Center renamed to Trade and Technical Training Division. In 2018, the operational leadership of SouthWest Skill Center (SWSC) came under GateWay. Formerly, SWSC was aligned with Estrella Mountain Community College. GateWay now has five campuses or sites it manages:

- 18th Street at 555 N. 18th Street
- Central City Campus at 1245 E. Buckeye Road (formerly Maricopa Skill Center)
- Deer Valley Campus at 2931 W. Bell Road (formerly Maricopa Skill Center-Northwest)
- SouthWest Skill Center at 3000 N. Dysart Road
- Washington Campus at 108 N. 40th Street

Growth

Program offerings have grown to include more than 150 degree, certificate and workforce training options in a wide variety of industries, allowing us to emerge as a leading institution in meeting the needs of business and industry throughout our community.

We now enroll more than 11,000 students annually. We strive to continuously provide a high quality of education with support from student service areas and career training through innovation and state-of-the-art technology.

Programs designed to reach out to the community include GateWay Community High School, the Johnson Controls Institute, the HUG Clinic, workforce development partnerships, healthcare and nursing continuing education and proactive ties with neighborhood schools, utilizing service-learning and other volunteer activities.

As we continue to address the needs of the healthcare and technology industries, our general education (transfer) programs are growing tremendously as well.

Celebrating 50 Years of Educating, Engaging and Connecting

2018-2019 marked our 50th Anniversary. Learn more about our history by clicking on the link to a short video <https://www.youtube.com/watch?v=xpqKo2AU0qE&t=1s> or browsing through the timeline here: <https://www.gatewaycc.edu/about-gateway/gateway-history>. If you would like to share historical images, please send to community@gatewaycc.edu. Thank you for sharing.

Vision, Mission, Core Values, and Strategic Priorities

VISION

GateWay Community College will... Educate and Innovate to prepare tomorrow's workforce

MISSION

GateWay Community College's mission is to serve a diverse community through equitable, inclusive, and meaningful learning opportunities that prepare students to thrive in a global community.

CORE VALUES

As a [College of Well-Being](#), we strive to cultivate an environment of meaningful learning and engagement through the following core values:

- **Character** – developing strengths of character that enable us to be and do our best
- **Care** – taking care of emotional, physical & environmental needs to cultivate conditions for flourishing
- **Connection** – fostering and maintaining close, positive relationships; a sense of belonging
- **Contribution** – being a part of something bigger than ourselves; finding a purpose for learning and for life
- **Career** – making decisions that contribute both to career and life success

STRATEGIC PRIORITIES

GateWay Community College and GateWay Early College High School, in achieving the mission of the College, is committed to the following strategic priorities:

- **Student Success**
Provide an inclusive and equitable student experience that advances access, increases retention, and supports students to academic success and completion.
- **Learning Excellence**
Cultivate student ready, human centric learning opportunities and environments that prepare students to be members of a diverse and global community.
- **Innovation**
Serve as an economic engine through future-focused, innovative programming and services that meet the diverse needs of students, industry, and the community.
- **Great Place to Work**
Ensure GateWay is recognized as a preferred workplace and achieve organizational and operational effectiveness.

Achieve Success



Please take the time to read carefully and reflect on the Achieve Success steps identified below. The objective of this document is to inform students of their personal responsibilities for their own education and to focus faculty and staff on what they should expect of students wishing to maximize their higher education experience.

Attendance... Students are expected to attend all classes, to come to class prepared, to be on time, to have all required materials, to complete all homework, and to be prepared to participate in classroom discussions and learning activities. Being absent does not excuse you from your responsibilities regarding material covered, quizzes, exams, homework, experiments, or projects.

Critical Thinking... Today's workplace requires employees who can systematically apply knowledge and critical thinking skills. It is not enough to memorize facts or figures; students must be able to use information to further investigate their workplace as well as world events.

Honesty... There is no substitute for honesty. Students are responsible for knowing the standards of conduct and student policies found in the GateWay Community College Catalog and Student Handbook, and must adhere to these standards at all times.

Intensity... Attitude is everything! Education is important for personal success today more than ever before. Make education a priority. Success demands persistence and the intense commitment of time and talent.

Expectation... Expect to be taught well, but also accept your personal responsibility to learn. Faculty can expose you to an abundance of information, and they can provide you with opportunities and activities that are conducive to learning. As a student, you must seize opportunities to apply that information to specific situations that confront you in your everyday life.

Value... Value your education. Make it your personal goal to graduate with the knowledge and skills necessary to be one of the best at what you do.

Enlightenment... Ask yourself why you are seeking a higher education. Challenge yourself to achieve success at the highest level possible.

Institutional Learning Outcomes

GateWay Community College is committed to student success through assessment for student learning. It is the aspiration of all faculty and staff that graduates of GateWay Community College will demonstrate proficiency in our three Institutional Learning Outcomes: Effective Communication, Critical Thinking and Problem Solving, and Personal Responsibility and Civic Engagement.

We believe that these three Institutional Learning Outcomes are beneficial to students as they transition to the workforce or continue their academic studies, and endeavor to become engaged global citizens.

Effective Communication

Learners will communicate effectively in a range of social, academic, and professional contexts as defined by five competency areas: emotional intelligence, active listening, written, oral and visual modes, effective use of technology, and collaboration skills.

Critical Thinking and Problem Solving

Learners will develop the mindset to gather, organize, synthesize, analyze, and evaluate information to solve problems and make evidence-based decisions as defined by four competency areas: metacognition, decision making, information literacy, and analytical inquiry/quantitative reasoning.

Personal Responsibility and Civic Engagement

Learners will demonstrate personal growth and responsibility to others by addressing diverse cultural, civic, social, and global issues.

Accreditation

College Accreditation

GateWay Community College is accredited by the [Higher Learning Commission](https://www.hlcommission.org/). Visit [accrreditation.gatewaycc.edu](https://www.gatewaycc.edu/accrreditation) for additional information on the accreditation process.

Accreditation is a review process used in higher education to scrutinize colleges, universities, and educational programs for quality assurance and quality improvement. GateWay Community College's accreditation was last reaffirmed in 2020 with an update in 2022 expanding this accreditation to include the offering of a Bachelor of Applied Science degree in Nuclear Medicine Technology and Computed Tomography. In October 2023 is the next Higher Learning Commission assurance review. Such assurance reviews provide colleges fully accredited on the open pathway model an opportunity to demonstrate continued compliance with Higher Learning Commission's criteria at around the 4 year point of the standard 10 year accreditation period.

- Criterion 1 - Mission and Integrity
- Criterion 2 - Preparing for the Future
- Criterion 3 - Students Learning and Effective Teaching
- Criterion 4 - Acquisition, Discovery and Application of Knowledge
- Criterion 5 - Engagement and Service

Program Accreditation

Healthcare

- [Associate of Applied Science in Nursing – Registered Nurse](https://www.gatewaycc.edu/registered-nursing)

<https://www.gatewaycc.edu/registered-nursing>

The Maricopa Nursing Program at GateWay Community College is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN).

Accreditation Commission for Education in Nursing (ACEN)

3343 Peachtree Road NE, Suite 850

Atlanta, GA 30326

Phone: 404-975-5000 | www.acenursing.org

- [Diagnostic Medical Sonography](https://www.gatewaycc.edu/diagnostic-medical-sonography)

<https://www.gatewaycc.edu/diagnostic-medical-sonography>

Commission on Accreditation of Allied Health Education Programs

9355 - 113th St. N. #7709, Seminole, FL 33775

Phone: 727-210-2350 | www.caahep.org

- **[Electroneuro-diagnostic \(END\) Technology](#)**

<https://www.gatewaycc.edu/eegend-technology>

Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Committee on Education in Neurodiagnostic Technology

Commission on Accreditation of Allied Health Education Programs

9355 - 113th St. N. #7709, Seminole, FL 33775

Phone: 727-210-2350 | www.caahep.org

- **[Medical Assisting](#)**

<https://www.gatewaycc.edu/medical-assistant>

Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs

9355 - 113th St. N. #7709, Seminole, FL 33775

Phone: 727-210-2350 | www.caahep.org

- **[Medical Radiography](#)**

<https://www.gatewaycc.edu/medical-radiography>

Joint Review Committee on Education in Radiologic Technology

20 N. Wacker Drive, Suite 2850

Chicago, IL 60606-3182

Phone: 312-704-5300 | Fax: (312) 704-5304 | mail@jrcert.org | www.jrcert.org

- **[Nuclear Medicine Technology](#)**

<https://www.gatewaycc.edu/nuclear-medicine-technology>

Joint Review Committee on Education in Nuclear Medicine Technology

2000 W. Danforth Rd., Ste 130 #203

Edmond OK 73003

Phone: 405-285-0546 | www.jrcnmt.org

- **[Nurse Assisting](#)**

<https://www.gatewaycc.edu/nurse-assisting>

The Nurse Assisting Program is approved by the Arizona State Board of Nursing

4747 North 7th Street, Suite 200

Phoenix, AZ 85014-3655

Phone: 602-771-7800 | www.azbn.gov

- **[Occupational Therapy Assistant](#)**

<https://www.gatewaycc.edu/degrees-certificates/occupational-therapy-assistant>

Accreditation Council for Occupational Therapy Education (ACOTE®) of the American Occupational Therapy Association (AOTA)

6116 Executive Boulevard, Suite 200

North Bethesda, MD 20852-4929

Phone: 301-652-8682 | accred@aota.org | www.acoteonline.org

- **[Physical Therapist Assisting](#)**

<https://www.gatewaycc.edu/physical-therapist-assisting>

Commission on Accreditation in Physical Therapy Education (CAPTE)

1111 N. Fairfax Street, Alexandria, VA 22314-1488

Phone: 703-706-3245 | accreditation@apta.org | www.capteonline.org

- **[Polysomnographic Technology](#)**

<https://www.gatewaycc.edu/polysomnography-technology>

Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Committee on Accreditation for Polysomnographic Technologist Education.

Commission on Accreditation of Allied Health Education Programs

9355 - 113th St. N. #7709

Seminole, FL 33775

Phone: 727-210-2350 | www.caahep.org

- **Practical Nursing**

<https://www.gatewaycc.edu/practical-nursing>

The Practical Nursing Program is approved by the Arizona State Board of Nursing
4747 North 7th Street, Suite 200

Phoenix, AZ 85014-3655

Phone: 602-771-7800 | www.azbn.gov

- **Respiratory Care**

<https://www.gatewaycc.edu/respiratory-care>

Commission on Accreditation for Respiratory Care (CoARC)

264 Precision Blvd., Telford, TN 37690

Phone: 817-283-2835 | www.coarc.com

- **Surgical Technology**

<https://www.gatewaycc.edu/surgical-technology>

Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the
recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical
Assisting (ARC/STSA).

Commission on Accreditation of Allied Health Education Programs

9355 - 113th St. N. #7709, Seminole, FL 33775

Phone: 727-210-2350 | www.caahep.org

Industrial Technology

- **Automotive Technology**

<https://www.gatewaycc.edu/automotive-technology>

National Institute for Automotive Service Excellence - Education Foundation

1503 Edwards Ferry Road, N.E., Suite 401

Leesburg, VA 20176

Phone: 703-669-6650 | www.ase.com and www.aseeducationfoundation.org

Academic Calendar

MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT 2023-2024 ACADEMIC CALENDAR

Dates are subject to change*

The most up to date calendar information can be found at:

<https://district.maricopa.edu/regulations/admin-regs/section-2/academic-calendars>

Colleges may modify start dates in order to meet special needs. Dates listed below which are directly related to instruction refer to the traditional academic year model. Some courses may be offered over time-periods for which these dates are not applicable. **Links to ASU, GCU, NAU, and U of A calendars incorporated on last page for reference only and are subject to change without notice.**

SUMMER SEMESTER - 2023 Note: Subject to the 2023-2024 Catalog

Mon	May 15	Final Grades Due for Spring 2023 Semester
Mon	May 22	Tuition Due for Summer 2023 Semester
Mon	May 29	Memorial Day (Colleges Closed)
Tues	May 30	Summer Semester Begins
Mon	Jun 19	Juneteenth National Independence Day (Colleges Closed)
Mon-Sat	Jul 3-8	Summer Break for Clock Hour Programs Only
Tues	Jul 4	Independence Day (Colleges Closed)
Thu	Aug 3	Summer Semester Ends
Mon	Aug 7	Final Grades Due for Summer 2023 Semester

FALL SEMESTER - 2023

Wed	Aug 9	Tuition Due for Fall 2023 Semester
Fri	Aug 11	First Day of Faculty Accountability
Sat	Aug 19	Classes Begin
Mon	Sep 4	Labor Day (Colleges Closed)
Mon	Sep 18	Find a Class Opens for Spring 2024
Mon	Oct 2	Spring 2024 Priority Registration for Currently Enrolled Students
Sat+	Oct 7	Last Day for Withdrawal without Instructor's Signature
Mon++	Oct 9	Student Withdrawal with Instructor's Signature Begins
Mon	Oct 9	Spring 2024 Open Registration Begins
*		Application for December 2023 Graduation
Fri	Nov 10	Observance of Veterans Day (Colleges Closed)
Thu-Sun	Nov 23-26	Thanksgiving Day Holiday (Colleges Closed)
Sun	Dec 10	Last Day of Regular Classes
Mon-Fri**	Dec 11-15	Final Exams Week
Fri	Dec 15	Fall Semester Ends (Last day of Faculty Accountability)
Sat	Dec 16	Mid-Year Recess Begins for Students
Mon	Dec 18	Final Grades Due for Fall 2023 Semester
Sat-Mon	Dec 23-Jan 1	Mid-Year Recess (Colleges Closed)

SPRING SEMESTER - 2024

Tues	Jan 2	Employees Return
Wed	Jan 3	Tuition Due for Spring 2024 Semester
Mon	Jan 8	First day of Faculty Accountability
Mon	Jan 8	Clock Hour Student Classes Begin

Sat	Jan 13	Classes Begin
Mon	Jan 15	Martin Luther King, Jr. Day (Colleges Closed)
Mon	Feb 19	Presidents' Day (Colleges Closed)
Tue	Feb 20	Find a Class Opens for Summer/Fall 2024
Sat+	Mar 2	Last Day for Withdrawal without Instructor's Signature
Mon++	Mar 4	Student Withdrawal with Instructor's Signature Begins
Mon	Mar 4	Summer/Fall 2024 Priority Registration for Currently Enrolled Students
*		Application for May 2024 Graduation
Mon-Sun	Mar 11-17	Spring Break (Colleges Closed)
Mon	Mar 18	Summer/Fall 2024 Open Registration Begins
Sun	May 5	Last Day of Regular Classes
Mon-Fri**	May 6-10	Final Exams Week
Fri	May 10	Commencement
Fri	May 10	Spring Semester Ends (Last day of Faculty Accountability)
Mon	May 13	Final Grades Due for Spring 2024 Semester

SUMMER SEMESTER - 2024 Note: Subject to the 2024-2025 Catalog

Mon	May 20	Tuition Due for Summer 2024 Semester
Mon	May 27	Memorial Day (Colleges Closed)
Tues	May 28	Summer Semester Begins
Wed	Jun 19	Juneteenth National Independence Day (Colleges Closed)
Mon-Sat	Jul 1-6	Summer Break for Clock Hour Programs Only
Thu	Jul 4	Independence Day (Colleges Closed)
Thu	Aug 1	Summer Semester Ends
Mon	Aug 5	Final Grades Due for Summer 2024 Semester

* For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.

** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time.

+ Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in Catalog Common Pages).

++ After the 7th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix S-7 in Catalog Common Pages).

INSTRUCTIONAL DAYS:

Fall	Spring	
15 Mondays	13 Mondays	
16 Tuesdays	15 Tuesdays	
16 Wednesdays	15 Wednesdays	
15 Thursdays	15 Thursdays	
14 Fridays	15 Fridays	
—	—	
76 Days +	73 Days	= 149 Days Total

**Proposed Class
Start Dates**

MCCCD

ASU

Fall 2023

Sat - August 19

Thur - August 17

Spring 2024

Sat - January 13

Mon - January 8, 2023

Calendar for less than 12-month regular employees:

9-month employees August 14, 2023 - May 10, 2024

9.5-month employees August 7, 2023 - May 17, 2024

10-month employees July 31, 2023 - May 24, 2024

2023-2024

	S	M	T	W	TH	F	S
A	6	7	8	9	10	11	12
U	13	14	15	16	17	18	19
G	20	21	22	23	24	25	26
S	27	28	29	30	31	1	2
E	3	4	5	6	7	8	9
P	10	11	12	13	14	15	16
O	17	18	19	20	21	22	23
C	24	25	26	27	28	29	30
T	1	2	3	4	5	6	7
N	8	9	10	11	12	13	14
V	15	16	17	18	19	20	21
D	22	23	24	25	26	27	28
E	29	30	31	1	2	3	4
C	5	6	7	8	9	10	11
O	12	13	14	15	16	17	18
V	18	20	21	22	23	24	25
D	26	27	28	29	30	1	2
E	3	4	5	6	7	8	9
C	10	11	12	13	14	15	16
J	17	18	19	20	21	22	23
A	24	25	26	27	28	29	30
N	31	1	2	3	4	5	6
F	7	8	9	10	11	12	13
E	14	15	16	17	18	19	20
B	21	22	23	24	25	26	27
B	28	29	30	31	1	2	3
M	4	5	6	7	8	9	10
A	11	12	13	14	15	16	17
R	18	19	20	21	22	23	24
A	25	26	27	28	29	1	2
P	3	4	5	6	7	8	9
R	10	11	12	13	14	15	16
M	17	18	19	20	21	22	23
A	24	25	26	27	28	29	30
Y	31	1	2	3	4	5	6
P	7	8	9	10	11	12	13
R	14	15	16	17	18	19	20
M	21	22	23	24	25	26	27
A	28	29	30	1	2	3	4
Y	5	6	7	8	9	10	11
A	12	13	14	15	16	17	18
Y	19	20	21	22	23	24	25
	26	27	28	29	30	31	
TOTALS							

Contract Year – 2023-2024
 Contract Days – 196 (39 weeks)
 Accountability Days – 170
 Instructional Days – 149

Faculty Days Calendar

Instructional	Accountability	Contract
0	1	1
0	5	5
5	5	5
5	5	5
4	4	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
4	4	5
5	5	5
3	3	5
5	5	5
5	5	5
5	5	5
0	5	5
0	0	5
0	0	5
0	5	5
4	4	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
5	5	5
0	5	5
149	170	196

Arizona State University (ASU)
 Northern Arizona University (NAU)
 Grand Canyon University (GCU)
 University of Arizona (UA)

* For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.
 ** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time.
 + Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in Catalog Common Pages).
 ++ After the 7th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix S-7 in Catalog Common Pages).

Academic Locations

Discover GateWay Community College

We're excited to welcome you to GateWay Community College. Whether you're considering in-person academic programs or plan to attend classes online, you'll know that GateWay is the right choice for you when you see our state-of-the-art classrooms, hands-on learning opportunities, and warm, collaborative community in action.

18TH STREET

**55 North 18th Street
Phoenix, AZ 85006
602-286-8000**

Our 18th Street Campus provides hands-on training for many healthcare degree and certificate programs. It is also home to the Healthcare United at GateWay Clinic, or HUG clinic, and the Safe Patient Handling Education Lab, or SaPHE (SAFE) Lab, for Nursing and Allied Health students. These state-of-the-art facilities and our programs help train the next generation of healthcare professionals to fill critical job openings in Arizona's healthcare system.



CENTRAL CITY

**1245 East Buckeye Road
Phoenix, AZ 85034
602-704-2784**

Our Central City Campus is home to many of our trade and technical training programs. With quick certifications that take as little as six months to complete, our knowledgeable instructors and state-of-the-art facilities will ensure you receive hands-on training and take the most direct path to land your dream career.



SOUTHWEST SKILL CENTER

**3000 North Dysart Road
Avondale, AZ 85392
602-392-5401**

SouthWest Skill Center is located on the campus of our sister school, Estrella Mountain Community College. The newest expansion, Arroyo Hall was designed to meet the high-growth and workforce demand of the Valley, and is home to our Ophthalmic Medical Assistant, Pharmacy Technician, and Massage Therapy programs.



WASHINGTON CAMPUS

**108 North 40th Street
Phoenix, AZ 85034
602-286-8000**

Our Washington Campus is centrally located in Phoenix, next to Sky Harbor Airport. Featuring our award-winning Integrated Education building, you'll soon discover why GateWay Community College has been consistently ranked the top community college in Arizona.



PHOENIX FORGE

**535 West Van Buren Street
Phoenix, AZ 85003
602-286-8599**

Our Phoenix Forge location offers a variety of short classes on a rotating schedule. Classes teach basic concepts and applied practice on how to use the wide variety of equipment and tools we have available.

Phoenix Forge is a makerspace powered by GateWay Community College on behalf of the Maricopa County Community College District. It is open to the public, MCCC students, staff and faculty.



Membership to the makerspace is open to everyone over 18 years old. Members can enjoy access to all areas of the makerspace.

CENTER FOR ENTREPRENEURIAL INNOVATION (CEI)

**275 North GateWay Drive
Phoenix, AZ 85034
602-286-8950**

We help startups get to market and companies build their talent.

From the start, CEI has been a place for innovators to learn, grow, and refine their ideas without ever losing sight of the big picture: to get life-changing products to market. Not only do we help them commercialize and scale, we offer a community that fosters their passion for entrepreneurship so they can weather the ups and downs of launching a business.



**DEER VALLEY
2931 West Bell Rd.
Phoenix, AZ 85053
602-392-5000**

COMING SOON!

GateWay is the only Maricopa Community College that offers a suite of Beauty & Wellness programs -- aesthetics, cosmetology, hair styling, massage, nail technician and a specialized program for practitioners who wish to eventually become beauty and wellness instructors. These programs are considered clock hour programs, which are non-credit training programs that provide skills for quick entry into the workforce. All have specific year-round start dates, and you attend classes four days a week, Monday-Thursday.



You will learn your skills by practicing on each other and/or eventually serving actual clients, all with instructor supervision. Instructors supervise and receive feedback from clients to make sure you are providing adequate service. The school has a salon open to the public and holds clinics often.

Student Services

Admissions and Records

Email: enroll@gatewaycc.edu or clockenroll@gatewaycc.edu

Websites:

- <https://www.gatewaycc.edu/enroll>
- Virtual Lobby Credit Programs
<https://gatewaycc.craniumcafe.com/group/credit-admissions/lobby>
- Virtual Lobby Clock Programs <https://gatewaycc.craniumcafe.com/group/clock-admissions/lobby>

Admissions and Records oversees important parts of your student experience at GateWay Community College from the early admissions steps to the exciting graduation processes. We can help you receive assistance with becoming a student, registering for classes, obtaining records, residency questions and submitting eForms.

Becoming a Student

We are excited that you are choosing GateWay Community College to pursue your education and training. To enroll, please follow the steps found here: <https://www.gatewaycc.edu/enroll>

Forms

Log in to your Student Center to view the documents being requested from you. A list of available admissions and registration forms is found here: <https://www.gatewaycc.edu/students/registration-forms>

Graduation

GateWay provides graduation specifically for students completing a degree and/or certificates in Occupational and University Transfer education (Credit) or Trade and Technical Training (Clock) programs. More information is found here: <https://www.gatewaycc.edu/students/graduation>

Residency and Citizenship

As a student at GateWay Community College it is important to establish residency, citizenship or lawful presence. All new students are considered out-of-state until the proper documentation has been submitted and processed. It is the student's responsibility to submit all necessary documentation prior to the start of the term. More information is found here:

<https://www.gatewaycc.edu/students/residency-and-citizenship>

Transcripts

Transcripts are an official record of your enrollment. Official transcripts are embossed with the College Seal and printed on official transcript paper. Official transcripts are \$5 per transcript. Transcript fee(s) must be paid prior to release of the transcript. More information is found here:

<https://www.gatewaycc.edu/students/request-transcripts>

Transfer Course Credits

For new or current students to GateWay Community College, who wish to transfer coursework completed at a previous college/university for credit, more information is found here:

<https://www.gatewaycc.edu/students/transfer-course-credits>

Tuition and Fees

Tuition is calculated by the number of credits earned. Students pay tuition and fees per semester credit hour according to their Residency Classification. Persons must be domiciled in Arizona for one year (12 full months) and be domiciled in Maricopa County for at least 50 days to qualify as a Maricopa County resident.

Tuition and fees are subject to change without notice. More information is found here:

<https://www.gatewaycc.edu/pay-college/tuition-and-fees>

Academic Advising

Website: <https://www.gatewaycc.edu/students/academic-advising>

Academic advising is more than selecting courses for an upcoming semester or making a plan to graduate. Students should initiate and maintain contact with advisors to discuss situations and issues affecting academic performance, including:

- Enrolling in [Gecko Gear Up](https://www.gatewaycc.edu/students/gecko-gear-new-student-orientation-advising-and-registrati) - <https://www.gatewaycc.edu/students/gecko-gear-new-student-orientation-advising-and-registrati>
[on](https://www.gatewaycc.edu/students/gecko-gear-new-student-orientation-advising-and-registrati)
- Determining [class selection](https://www.gatewaycc.edu/students/classes) - <https://www.gatewaycc.edu/students/classes>
- [Prior Learning Assessment Evaluation](https://www.maricopa.edu/students/assessment-placement/prior-learning-assessment) - <https://www.maricopa.edu/students/assessment-placement/prior-learning-assessment>
- Academic, professional and technical programs
- Exploration of educational and life goals
- Information on campus resources and services
- Selection and sequencing of courses
- University transfer options
- Work and family commitments

Advisors will listen and respond to personal interests and concerns, suggest useful college resources, share college and departmental policies and procedures, make appropriate referrals for student support services and provide guidance and assistance with academic, career, and life goals.

In order to see an advisor, you must have completed the [Admissions Process](https://www.maricopa.edu/become-student) -

<https://www.maricopa.edu/become-student>

Assessment Policies and Procedures

Please see Testing & Essential Skills Center section :

<https://www.gatewaycc.edu/students/testing-center/testing-essential-skills-center>

Bookstore - Follett

Locations: Washington Campus// Main Building, Room MA-1200

Phone: 602-286-8400

Email: 0179mgr@follett.com

Website: <https://www.gatewaycc.edu/bookstore>

Hours: please visit website - <https://www.gatewaycc.edu/bookstore>

We have been hard at work serving the GateWay Community. Here is how we can help make the most of your semester:

Serving Students Online:

- Order Online, Ship to Location - Early ordering and shipping direct will help you be prepared for your new learning environment ahead of your class start date
- Order Online - Please visit <https://www.bkstr.com/gatewayccstore> to place an online order
- Online Textbook Rental - At checkout, you will be prompted to select "rent" for eligible textbooks. Register for text rental at: [Rental Registration/Create Account](#) or during your checkout process
- No Contact Rental Check-In - Always available online through eFollett account under rentals or watch for your rental return reminder email for instructions
- Buyback - Want to sell your books online? Please follow this link: [Sell Your Textbooks Online](#)
- Credit, Debit, PayPal, PayPal Credit, and Apply Pay are available

Course Materials and Digital:

- Many course materials have digital versions; same content just a digital format
- Digital course materials are available immediately after checkout and arrive in your email. You can also access your digital purchases in your bookstore online account under history
- Course materials are refund eligible with seven calendar days from the semester start date. You may be asked to provide a copy of your class schedule. Proof of purchase is required. Shipping costs for refunds is at your expense. Digital refunds dependent on content downloaded and publisher restriction. For full refund policy click here: [Course Material Refund/Exchange Policy](#)

Rent-a-Text

GateWay, along with Maricopa Community Colleges, participates in the Follett book rental program. This means you may save money by renting course textbooks. For rental details, stop by the campus bookstore or visit [Rent-a-Text](#) online.

Online Bookstore

Browse the [GateWay Bookstore](#) online to find many of the same items that are available on campus, including:

- Textbooks
- GateWay clothing and apparel (T-shirts, sweatshirts, shorts, fan gear, etc.)
- Computer products
- Classroom supplies & course materials
- Gifts & accessories
- Announcements
- Textbook rental information & account registration

Campus Dining

Locations:

- Washington Campus, Main (MA) Building: Gecko Café
- Washington Campus, Integrated Education (IE) Building: Gecko Espresso
- Central City Campus

Phone: 602-286-8308

Email: jacob.ruelas@sodexo.com

Website: <https://www.gatewaycc.edu/dining>

Hours: please visit website - <https://www.gatewaycc.edu/dining>

Vending machines are available, with beverages and select food items, at most locations.

While at GateWay, come grab a bite at the Gecko Café or a quick jolt of caffeine at Gecko Espresso both managed by Sodexo. You will find a variety of dining selections and catering services on campus to choose from.

Washington - Gecko Café

Location: Main (MA) Building, Room MA 1114

The Gecko Café is located in the Main Building, near the student lounge and offers a variety of menu items at reasonable prices. At the cafeteria, you can choose from burgers and fries, Crust pizza, salads, soups, sandwiches, and an assortment of drinks, snacks, desserts, and sides. Breakfast and lunch are served. Vending options are also available.

Washington - Gecko Espresso

Location: Integrated Education (IE) Building, Room IE 1140 - next to library

Gecko Espresso is located on the first floor of the IE building, near the Library, and offers coffee drinks, bagels, pastries, sandwiches, and more.

Central City

Location: B Building, Room Portal 8 - use center courtyard entrance

Sodexo provides a vending area in the cafeteria area on the Central City Campus. You are able to select items and pay for them using cash or credit cards. The area is under camera surveillance monitored by Public Safety.

Career Services

Phone: 602-286-8500

Email: careercenter@gatewaycc.edu

Website: <https://www.gatewaycc.edu/career-services>

Hours: Virtually: Monday-Thursday 8:00 a.m. - 5:00 p.m. & Friday 10:00 a.m. - 5:00 p.m.

Plan Ahead for Career Success

The Career Center is open to all students, alumni and community members. Up-to-date resources and individualized assistance is offered in career assessment, career planning, resume development, interview preparation, job search resources, employer contacts, and internships. Our goal is to assist you with your career and job search needs, no matter if you are in the early stages of exploration or the later stages of interviewing.

In order to help you build effective job searching skills, we provide:

- Internet access to find potential employment with local, state and national employers
- On campus employer recruitment
- Workshops to develop job searching, resume writing, interviewing and employable skills
- Internships
- Job search resources

- Search assistance in finding hundreds of jobs by career field and other categories where you can apply online and submit your resume
- An annual job fair connecting employers with job seekers by industry

Not Sure What You Want to Study?

You can discover majors and in-demand careers based on your interests by using Career Coach found here: <https://maricopa.lightcastcc.com/?radius=®ion=Maricopa%20County>. This quick assessment helps you explore potential future jobs, which helps guide your educational journey.

Alumni

Reach back and support Student Success through Connect with Alumni found here: <https://www.gatewaycc.edu/alumni>

Center For Student Life and Leadership

Website: <https://www.gatewaycc.edu/student-life>

Get Involved at GateWay

College is about more than what happens in the classroom. GateWay's Office of Student Life and Leadership offers opportunities for you to get involved, so you can connect with other students and faculty, follow your passion, contribute to the community, and grow as an individual. Explore your opportunities and enjoy the student life!

Student Organizations

College is the perfect time to develop vital leadership, social and communication skills through club interactions. Our Student Life Office offers many opportunities for students to participate in athletics, join student leadership groups or simply get to know another fellow Gecko.

Whether you're interested in exploring different cultures, advocating for student issues or playing a round of chess with friends, our many student organizations provide opportunities for everyone.

- Anime Club: <https://www.gatewaycc.edu/students/campus-life/anime-club>
- Esports: <https://www.gatewaycc.edu/students/campus-life/esports>
- Hispanic Student Organization: <https://www.gatewaycc.edu/students/campus-life/hispanic-student-organization-hso>
- Inter-Tribal Club: <https://www.gatewaycc.edu/students/campus-life/inter-tribal-club>
- LGBTQIA+ Club: <https://www.gatewaycc.edu/students/campus-life/lgbtqia-club>
- Male Empowerment Network (MEN): <https://www.gatewaycc.edu/students/campus-life/male-empowerment-network>
- Phi Theta Kappa: <https://www.gatewaycc.edu/students/campus-life/phi-theta-kappa-ptk>
- Student Association of Radiologic Technologists (StART): <https://www.gatewaycc.edu/students/campus-life/student-association-radiologic-technologists-st-art>
- Student Nurses Association: <https://www.gatewaycc.edu/students/campus-life/student-nurses-association>
- Veterans Club: <https://www.gatewaycc.edu/students/campus-life/veterans-club>
- Women Rising: <https://www.maricopa.edu/students/student-life/women-rising>

College Police / Parking

Locations:

- Washington Campus, College Police Building
- 18th Street, 1st Floor
- CEI College Police Building
- Central City, A-Building, Room A113
- Deer Valley, Room 151
- Phoenix Forge

Phone:

- Emergencies 24 hours/day: 480-784-0911
- Non-Emergencies: 480-784-0900

Website: <https://www.gatewaycc.edu/students/college-police-and-emergency-information>

Hours:

- Washington Campus: College Police staff is on-site 24 hours a day, seven days a week
- 18th Street: operational hours
- Central City: operational hours
- Deer Valley: operational hours
- Phoenix Forge: operational hours

Office Hours for Parking Permits and Other Requests:

- Washington Campus: Monday-Thursday 6:00 a.m. - 7:00 p.m.
- Deer Valley (in the Business Services office): Monday-Thursday 8:00 a.m. - 5:00 p.m.
- Central City (in the Business Services office): Monday-Thursday 8:00 a.m. - 5:00 p.m.

The Maricopa Community Colleges Police Department at GateWay Community College is located in the College Police Building. The campus is manned 24/7/365. The telephone number is 480-784-0900. Students may utilize the on-campus Extension 4.0900. The primary role of the department is to provide assistance and protection of people on campus and the protection of district and personal property.

Areas of Refuge

Areas of Refuge for disabled persons are located in the following areas at the Washington campus :

- In the Main Building, second floor (southwest side) in the vicinity of Room MA2305
- In the Center for Health Careers Education on the opposite side of Room CH2035 in the south wing
- In the Center for Health Careers Education, west of Room CH2153 in the north wing
- In the Integrated Education Building, second floor (east side) by the elevators near the Learning Center
- In the Integrated Education Building, second floor (west side) in the vicinity of Room IE2214
- In the Integrated Education Building, third floor (east side) by the elevators near the faculty offices
- In the Integrated Education Building, third floor (west side) in the vicinity of Room IE3209
- In the Main Building, second floor (southeast side) in the vicinity of Room MA2111

During evacuations, disabled persons should be assisted to these locations for evacuation by College Police, Fire Personnel, Faculty, Staff, or anyone else who can be of assistance.

Assistance with Disabled Motor Vehicles

Reasonable attempts will be made to assist persons that are experiencing vehicle problems, such as a dead battery, or a low tire. Persons experiencing such problems should proceed to the College Police Department or contact us at 480-784-0900.

Students, faculty and staff are encouraged to report all criminal activity and emergencies that occur on campus. A report may be filed through a College Police officer. In case of emergency, individuals may utilize 480-784-0911 or 9-1-1 if exceptional circumstances exist. Reports of a nonemergency nature may be reported via the phone or made in person at the College Police Office.

Safety Escorts

A safety escort is available to students, faculty and staff who wish to be accompanied to any location on campus. Anyone may request an escort in person at the College Police Building or by calling 480-784-0911, ext. 4-0911. A College Police employee will accompany you to your on-campus destination.

Smoking

In order to promote a healthy learning and work environment, the Chancellor has directed that the Maricopa County Community College District serve as a total smoke-free and tobacco-free environment, effective July 1, 2012. Smoking (including the use of "e-cigs") and all uses of tobacco shall be prohibited from all District owned and leased property and facilities, including but not limited to parking lots, rooftops, courtyards, plazas, entrance and exit ways, vehicles, sidewalks common areas, grounds, athletic facilities and libraries.

Student Responsibility in Crime Prevention

The cooperation and personal support of students is crucial to the success of safety and security programs with regard to the campus community. Students must assume some responsibility for their own safety and the security of their personal property. By taking common sense precautions and adopting an awareness of their surroundings and environment, students can greatly reduce the probability of becoming a victim of a crime. To assist the student in becoming better informed, the College Police Department provides the following information:

- Certain types of crimes may pose an on-going threat to the campus community.
- Notification of an immediate or on-going threat may be disseminated through text messaging and email through the use of the emergency notification system commonly referred to as RAVE Notification, public address system or face-to-face. The College Police Department may use any or all means available to make the necessary notifications.
- The College Police Department publishes an annual report identifying the types of crime that have occurred on campus during the fiscal year. The type of crime reported is defined by the FBI in the Uniform Crime Reporting System.
- The report is prepared annually and is available on the GateWay web site at: <https://www.gatewaycc.edu/students/college-police-and-emergency-information>

Copy / Mail Center - Pacific Office Automation

Location:

- Washington Campus, Main Building (MA) MA 1210

Phone: 602-286-8313

Website: <https://www.gatewaycc.edu/copy-services>

Copy services are provided by [Pacific Office Automation](https://www.pacificoffice.com/) (<https://www.pacificoffice.com/>). The Pacific Office Automation (POA) Copy Center is conveniently located in the center of campus in the Main building, room MA1210.

Click on [Digital Store Front](#) to place an order.

(<https://mcccd.myprintdesk.net/DSF/SmartStore.aspx?SITEGUID=cf69e809-c892-4845-9b71-9af62fdd238a#!/Storefront>)

We provide complete copy services, including:

- High Speed Black & White Copying
- Color Copies
- Transparencies
- GBC Presentation Binding
- Digital Copying
- Personal Copying
- Cutting and 3-Hole Drilling
- Oversize Copying
- NCR Forms
- Padding
- Laminating
- Alternative Binding Options
- Shrink Wrapping
- Tabs
- Folding
- Campus Copier Support

Counseling

Location: Washington Campus, Main Building, MA 1300

Phone:

- 602-286-890
- 602-286-8125 Chair, Sharon Zygowicz

Crisis Line:

- 480-784-1500 La Frontera EMPACT
- 1-800-273-8255 National Suicide Prevention Lifeline

Email: counseling@gatewaycc.edu

Website: <https://www.gatewaycc.edu/counseling>

Courses:

- CAP - Counseling and Applied Psychology
- CPD - Counseling/Personal Development
- EXS - Exercise Science
- FITNESS - Non-Credit Fitness
- FYE - First Year Experience

- HES - Health Science
- PED - Physical Activities/Lifetime Fitness
- WED - Wellness Education

In the event of an emergency, dial 9-1-1 or the College Police at 480-784-0911. The goal of a counselor is to promote the development of effective and adaptive behavior in people. The counseling process enables personal growth and may be carried over into many aspects of life. Counseling services are available on campus, providing a unique and collaborative relationship between a professional and student in need of help. Student counseling services are free. Please note, counselors do not provide clinical work/ treatment of disorders. However, counselors may provide community resources/contacts.

About Our Counselors

The counselors at GateWay are professionals who have been trained to provide counseling services to those in need. In order to be a counselor in the Maricopa Community Colleges, a counselor must have a minimum of a Master's degree or higher, majoring in counseling and other similar criteria.

Resources

The following list of online resources has been compiled in order to assist with various counseling needs:

- 2-1-1 Arizona
- Find Help Phoenix
- Bus planner and public transportation information to get to where you need to go
- Mental Health Net
- Valley Metro Public Transportation
- MCCCDC Basic Needs Resources

Reasons for Counseling

Students seek counseling for a variety of reasons, including:

- Adjusting to a college setting
- Crisis response
- Eliminating self-defeating behavior in academics
- Improving academic self-esteem
- Making, educational and career choices
- Managing time
- Reducing stress
- Setting personal and academic goals to promote educational success
- Reduce test anxiety

The mission of the GateWay Counseling Department is to meet the diverse academic, career, and personal enrichment needs of all students and our campus community. Learning-centered instruction, counseling, and consultation are provided to support and assist students with goal development and completion.

The Counseling Department at GateWay Community College can help you focus on issue assessment, problem-solving, and decision-making as they relate to academic, career, and personal goal achievement. In addition to referral to community providers for mental health and/or crisis services, this can include:

- Consultation

- Crisis Response
- Academic Counseling
- Student Success and Retention
- Career Counseling
- Counseling / Personal Development Courses (CPD)
- Referral to Community Resources

Course descriptions for Counseling and Personal Development (CPD) classes are listed in the class schedule and GateWay Catalog and Student Handbook.

Our Responsibility

It is the counselor's job to make students aware of possible alternative solutions to various situations, encouraging responsibility in taking actions. Services include individual change through counseling, consultation, coordination and classroom instruction. Counselors collaborate with other staff to help students reach their potential. Consulting with other professionals brings expertise to help staff, students and faculty find positive solutions.

Career Counseling

This service enables students to understand their values, interests, skills and experiences in choosing a career path. The career planning process involves matching students to the compatibility of lifestyle and work demands and assessing personality strengths and skills. Some assessments can be found in the Counseling Department while others are accessible in the Career Center. Please check with a counselor to see what your needs are for the best fit.

Career and Personality Assessment

We provide counseling tools that include career inventories and personality assessments to assist students in making career choices that are compatible with their interests, personality traits, work values, strengths and abilities. Please check with a counselor to see what your needs are, and which assessments are best for you.

Educational Counseling

Counseling faculty can assist you with finding direction for your educational planning. Trained staff can help you clarify your goals and values and develop your communication skills. Assessments and self-administered tests are also available to help you discover and evaluate your skills and abilities.

Crisis Response

Crisis response is available Monday - Friday (Monday - Thursday during the summer on a limited basis). Students may walk in and self-refer, or a faculty or staff member may refer a student to counseling.

Is my information kept confidential?

Counseling faculty maintain student privacy as outlined by FERPA (Family Educational Rights and Privacy Act) guidelines, and, like other college representatives, may release information as permitted by FERPA or in circumstances involving the safety of students or others. Counseling faculty are mandated by Title IX of the Educational Amendments of 1972 to report knowledge of gender-based or sexual discrimination that involves MCCC students or employees, including sexual harassment or sexual violence that creates a hostile environment on campus.

Contact the Counseling Department for additional assistance or to schedule an appointment.

Disability Resources

Locations:

- Washington Campus, Integrated Education Building, Room IE 1202
- Central City, A 102A
- Deer Valley

Phone: (602) 286-8171

Email: DRS@gatewaycc.edu

Website: <https://www.gatewaycc.edu/disability-resources>

Hours: please visit website - <https://www.gatewaycc.edu/disability-resources>

The DRS team is available to assist you and can be reached at (602) 286-8171 and DRS@gatewaycc.edu.

The Disability Resources and Services (DRS) Department endeavors to empower all students, advance their independence and develop a sense of self-advocacy. We strive to create a learning environment that assists students in reaching their full potential with reasonable accommodations.

Important Reminder: It is the student's responsibility to inform the DRS Office of his or her need for accommodation(s) each time he or she registers for a new course. All accommodations and academic adjustments are course and semester specific and do not carry over from course to course or semester to semester. If you are a returning student, please contact DRS Office for an accommodation renewal at the start of each new course or each semester.

About Disability Resources

If you are in need of accommodations such as an American Sign Language Interpreter or captioning for these purposes, please contact DRS Office.

The [Americans with Disabilities Act](#) requires institutions of higher education to provide reasonable accommodations to those with documented disabilities.

A reasonable accommodation is the provision of an auxiliary aid, or modification to the course or program, that will allow access to the educational program, material, activity, or degree. Examples include:

- Ensuring classroom and campus spaces are accessible
- Providing academic accommodations/adjustments in the classrooms
- Securing accessible materials
- Providing resources and services to ensure access

It is the responsibility of the student to inform the institution of his or her need for accommodations.

Disability Resources and Services

New to GWCC?

After you have been admitted as a student at GateWay Community College, your first step in applying for disability services is to complete the online New Student Application. Click on the DRS Connect icon

on the upper right of the webpage to complete the application. Please include your phone number that you can be reached at and your Maricopa student email. The DRS team ONLY utilizes Maricopa student emails to communicate with students. You will need to check your Maricopa student email on a regular basis so the DRS Team can guide you through your next steps of the DRS application process.

You must provide disability documentation to DRS. Learn more about the MCCCCD policy regarding [disability documentation](https://district.maricopa.edu/regulations/admin-regs/section-2/2-8): <https://district.maricopa.edu/regulations/admin-regs/section-2/2-8> .

Disability documentation may be provided to the DRS Office in several ways:

- Upload disability documentation at the end of the DRS Connect application online.
- Email disability documentation to disability.services@gatewaycc.edu
- Bring in person to the GateWay Washington Campus IE Bldg. Room IE 1202 First Floor.

The DRS Manager or a DRS Advisor may recommend resources and/or services. The DRS Manager or DRS Advisor may recommend services if you have a disability as defined by federal law (Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and the Americans with Disabilities Amendments Act (ADAAA) of 2008).

Sample Resources and Services may include:

- Alternative format textbooks
- Testing accommodations

Diversity, Equity & Inclusion

Location: Washington Campus, Main (MA) Building

Email: DEI@gatewaycc.edu

Website: <https://www.gatewaycc.edu/diversity-equity-inclusion>

GateWay Community College supports the success of all its students. To help the college achieve this goal, the Center for Diversity, Equity and Inclusion works toward a just community college experience where all students feel valued in our community, encounter personal growth and succeed in their academic journey. We offer students, faculty, and staff a variety of educational opportunities and community-building programs designed to foster inclusion, learning, and well-being for all. The Center for Diversity, Equity and Inclusion was established in 2021 through GateWay's U.S. Department of Education Title V Hispanic Serving Institution grant ÉXITO (#P031S190167). We provide an array of services designed to improve the holistic well-being of the campus community by facilitating learning, dialogue, reflection and connection. The Center provides various opportunities for you to get involved, ranging from educational conversations and workshops, to guest speakers, cultural celebrations, and more.

Enrollment Services

Website: <https://www.gatewaycc.edu/enroll>

We are excited that you are choosing GateWay Community College to pursue your education and training. Please follow the steps below, depending on the types of classes you are interested in.

Credit Programs - <https://www.gatewaycc.edu/enroll/enrollment-steps>

With our credit-based degree and certificate programs, you can earn a certificate, associate degree, or start your bachelor's degree in your desired field. GateWay offers affordable tuition, convenient locations, and so much more!

[Trade and Technical Training - https://www.gatewaycc.edu/enroll/clock-enrollment-steps](https://www.gatewaycc.edu/enroll/clock-enrollment-steps)

With our trade and technical training programs, also known as clock programs, you can earn a certification in your desired field in as little as six months. You will learn by doing and receive hands-on training from industry professionals.

[Choose A Program - https://www.gatewaycc.edu/degrees-certificates](https://www.gatewaycc.edu/degrees-certificates)

See which path could be right for you. Learn more about our fields of interest, and review the degree and certificate options available for each.

[Paying For College - https://www.gatewaycc.edu/pay-college](https://www.gatewaycc.edu/pay-college)

Paying your tuition shouldn't be complicated. Learn about the multiple payment options that make it easy.

Once you register for your classes, you will need to pay your tuition. There is no single best way to pay your college tuition, but knowing your options will help you create a plan that works best for you.

Take action early if you plan to apply for financial aid or need to set up a payment plan. Be sure to monitor your Maricopa student email and Student Center regularly for new payment balances, due dates, and other updates, such as financial aid awards.

[Financial Aid and Scholarships - https://www.gatewaycc.edu/pay-college/financial-aid](https://www.gatewaycc.edu/pay-college/financial-aid)

Concerned about education costs? Learn about financial aid and other scholarships you may qualify for.

A student's goal of attaining higher education shouldn't be out of reach because of cost. GateWay Community College Financial Aid Office's goal is to provide resources for students to find the funding needed to help pay for their educational expenses, including tuition, fees, and books.

HLC Student Guide

The HLC and external experts have identified questions to help students be more informed, to think about what they should ask before, during, and after college. The intent of [Ask the Right Questions: A Student Guide to Higher Education](#) is to give students and others a roadmap to the choices available within higher education.

This resource was developed through collaboration with several higher education organizations that work directly with students. In addition, HLC conducted focus groups and received feedback from high school students, student veterans, and adult learners.

Financial Aid

Location: Washington Campus - IE Building - Enrollment Service area

Phone: 855-622-2332 Financial Aid Answer Service

Hours for Financial Aid Answer Service:

- Fall and Spring: Monday-Thursday 8:00 a.m. - 6:00 p.m. & Friday 10:00 a.m. - 5:00 p.m.
- Summer: Monday-Thursday 8:00 a.m. - 6:00 p.m.

Online Chat & Virtual Meetings: <https://www.gatewaycc.edu/pay-college/financial-aid>

Email: finaid@gatewaycc.edu

Website: <https://www.gatewaycc.edu/pay-college/financial-aid>

Hours:

- Fall and Spring: Monday-Thursday 8:00 a.m. - 5:00 p.m. & Friday 10:00 a.m. - 5:00 p.m.
- Summer: Monday-Thursday 8:00 a.m. - 6:00 p.m.

Financial aid assistance is available to eligible GateWay Community College students in the form of grants, scholarships, employment, tuition payment plans or federal loans. Students may receive assistance from only one funding source or aid may be offered in a package from multiple sources. The student's award depends on eligibility, level of enrollment, calculated need, packaging policy, and availability of funds.

Under federal regulations, students have the primary responsibility for funding their education. For dependent students, their parents share that responsibility. All student awards are based on "need" after consideration of student and (where required) parental contribution. Refer to the Free Application for Federal Student Aid (FAFSA) for the federal definition of dependency.

Eligibility

Students must meet ALL of the following requirements to be eligible for federal student aid: be a US citizen or eligible non-citizen; be admitted as a regular student in an eligible program and enrolled in classes that pertain to that program only; make satisfactory academic progress (see policy below); have a high school diploma or GED; apply by completing the Free Application for Federal Student Aid (FAFSA) using the student's legal name and valid social security number; show financial "need" per federal regulation (for need-based aid, such as grants and work-study); be registered with Selective Service (if required); not be concurrently enrolled in high school; not be in default on any Title IV student loan or owe repayment on any Title IV student grant; not be convicted of certain drug trafficking or possession laws; must provide all documentation requested; and must use any funds received for educational purposes only. There are limits to the amount of grants and loans a student can receive in a year and in their lifetime. Additionally, federal student aid can never be received from more than one institution at a time. Students are required to be enrolled and attending credit/clock hours before financial aid funds (Title IV) can be disbursed.

Disbursement of aid will occur when the disbursement process begins for the semester/payment period or shortly after the start of the first class, whichever comes later. Students awarded a loan for one semester/payment period will receive their loan disbursements in two separate but even amounts, with the second disbursement paid out no sooner than halfway through the semester/payment period. In order to receive the second disbursement, both the clock and credit hour student must be in good academic status, currently attending, and the credit hour student must be enrolled in a minimum of six (6) credit hours (with no less than six (6) viable hours (viable hours are hours that have not been withdrawn or dropped from, and or graded with a failed grade of F, Z, or Y)). If the student's level of enrollment is reduced after financial aid has been disbursed, the award must be recalculated, and the student may owe a repayment.

How to Apply

Students are encouraged to apply early. Priority consideration for limited financial aid funds may be given to those completing the application process in full prior to March 1. Continuing students must

reapply for each academic year. Students enrolling for the first-time during spring or summer should apply as early as possible prior to the beginning of the semester/payment period they plan to attend. Students requesting financial assistance may begin the application process by completing the Free Application for Federal Student Aid (FAFSA). The school code for GateWay Community College (credit hour) is 008303, the school code for GateWay Community College (Skill Center/ clock) is E00701. Students apply electronically at <https://studentaid.gov/h/apply-for-aid/fafsa>. Students who need help applying can receive assistance with their federal aid application in the Enrollment Service area at any of the GateWay Community College sites or scheduling an appointment virtually at <https://www.gatewaycc.edu/pay-college/financial-aid>. After submitting the FAFSA to the processor, students will receive a Student Aid Report (SAR) by email. If the codes for GateWay Community College (008303 or E00701) are entered on the FAFSA, GateWay will also receive the results electronically. After the application is submitted online, students must monitor their student account at <https://www.maricopa.edu/students> and their Maricopa Gmail account frequently as additional documents may be required to complete their application or resolve any inconsistencies that may arise. Student financial aid applications cannot be reviewed until all requested documents have been received. Review of documents originally submitted sometimes triggers the need for additional information, which in turn could require further documentation or clarification. Therefore, it is important for the student to apply early. It is also important that the student keep Enrollment Services apprised of his/her current phone numbers, email addresses, and mailing addresses as students may also receive US postal mail and or phone communications from the financial aid office. Aid applications may be denied if mail is returned due to a bad mailing address

Grants

Grants are funds that do not have to be repaid, as long as the class is required for the completion of the student's Program of Study, and the student finishes the degree for which the grant was received. Students who withdraw or cease to attend may need to repay some or all of the grant.

Federal Pell Grant

Eligibility for Pell Grant must be determined first. Pell Grant awards are based on need, with amounts dependent on congressional appropriations and cost of attendance. The amount of the student's award in a credit-hour program is determined by their enrollment status (full-time, three-quarter-time, half-time, or less than half-time). The amount of the Pell Grant awarded to students enrolled in a clock-hour program is similar, though it is determined by a proration of hours in the program against the hours found in an academic year. As of July 1, 2012, students have a lifetime limitation of 600% Pell Grant which is the equivalent of 12 full-time semesters/payment periods. Reaching the lifetime maximum may affect eligibility for assistance in other federal student aid programs.

Federal Supplemental Educational Opportunity Grants (FSEOG)

FSEOG awards are subject to fund availability, student need, packaging policy, and enrollment status. Per federal regulation, priority is given to students who have exceptional financial need and for students who are also eligible for a Pell Grant. Award amounts may vary according to fund availability, student need, packaging policy, and enrollment status.

Leveraging Educational Assistance Partnership (LEAP)

LEAP recipients must be Arizona state residents and enrolled at least half-time. Award amounts will vary depending on fund availability, student need, packaging policy, and enrollment status. Students who receive FSEOG will not receive LEAP.

Scholarships

Scholarships generally do not require repayment. Scholarships come from a variety of sources and are awarded based on criteria specific to a particular scholarship. Scholarships are typically competitive, and no student should assume funds are guaranteed until either notified by a donor of their award or funds have been awarded to the student's account and are viewable. Per federal regulations, scholarships must be considered as a resource in determining eligibility for federal student aid. Receipt of a scholarship could cause a reduction in federal funds already awarded. Students are responsible for reporting any scholarships received.

Students are encouraged to apply for any and all scholarships for which they meet qualifications. Information on Scholarships can be found at <https://www.gatewaycc.edu/scholarships>. New scholarships become available throughout the year, so students should monitor this site on a regular basis. Free scholarship information and searches are also available at this site.

Employment

Students who are looking for employment at GateWay Community College may be offered part-time employment on campus, with work hours structured around the student's class schedule. Students looking for part-time jobs on campus should begin their search with the job postings found in Career Services.

Federal Work-Study (FWS)

FWS awards are based on fund availability, student need, and enrollment status. Students must apply online for positions through the Maricopa Community Colleges Careers site. There is no guarantee that every student will be placed or that they will earn the entire amount of their awards.

Non-Work Study Employment

Some departments on campus may have institutional funds to hire student employees. Positions for these work opportunities may be posted in Career Services or the Maricopa Community Colleges Careers site.

Federal Loans - William D. Ford Federal Direct Loan Program (Direct Loan)

Direct Loans are low-interest loans for students to help pay for the cost of their education after high school. The lender is the U.S. Department of education rather than a bank or other financial institution. With the Direct Loan, eligible students borrow directly from the federal government and have a single contact - their loan servicer - for everything related to repayment of their loans. Additionally, the student will have online access to their Direct Loan account information at <https://studentaid.gov/h/apply-for-aid>. Awarding is subject to student eligibility, including program of study and existing debt level as well as subject to terms of a default management plan. All student borrowers are required to attend an entrance counseling session as well as an exit interview to ensure full understanding of their rights and responsibilities associated with a student loan. The student must still be enrolled in their program and eligible for the loan at the time of disbursement (for Credit programs, the student must be enrolled in six or more viable credit hours; classes graded with a grade of F, Y, Z, W are no longer viable). An exit interview must also be completed when a student is withdrawn or graduates from a program. The interest rate on Direct Loans are variable but will never exceed 8.25%. Accepting all loans offered may negatively affect eligibility for need based scholarships and federal work study opportunities. Loans always require repayment, so students are encouraged to take a loan only after exploring all other funding possibilities.

Subsidized Loan

Eligible students who meet the federal definition of "need" may receive subsidized loans, whereby the federal government pays interest on the loan until the student enters repayment. No interest is charged as long as the student is enrolled at least half time and during deferment periods.

Unsubsidized Loan

Students who are otherwise eligible for loan, but who do not qualify for the subsidized loan, may receive Unsubsidized loans. Interest immediately begins accruing on the unsubsidized loan and the student will be responsible for the interest from the moment the loan is disbursed until it is paid in full.

Effective July 1, 2013 (for all students who receive loans for the first time), the Federal Direct Subsidized Loan has a maximum period of time that they will be eligible for the interest subsidy. This period of time cannot exceed 150% of the published length of the student's program or three years, whichever is less. Additionally, this time frame is cumulative and will carry over when students change their programs of study. If students continue enrollment after receiving subsidized loans for their maximum eligibility period, they will lose eligibility for additional subsidized loans. Furthermore, their prior subsidized loans will begin accruing interest like the Federal Direct Unsubsidized Loan.

Treatment of Title IV Aid When a Student Withdraws

The law specifies how your school must determine the amount of Title IV program assistance that you earn if you withdraw from school. The Title IV programs that are covered by this law are the following: Federal Pell Grants, National SMART Grants, TEACH Grants, Direct Loans, and the Federal Supplemental Educational Opportunity Grants (FSEOGs).

When you withdraw during your payment period or period of enrollment (you may contact the Financial Aid office to define these for you and tell you which one applies; the amount of Title IV program assistance that you have earned up to that point is determined by a specific formula. If you received (or your school or parent received on your behalf) less assistance than the amount that you earned, you may be able to receive those additional funds. If you received more assistance than you earned, the excess funds must be returned by the school and/or you.

The amount of assistance that you have earned is determined on a pro-rata basis. For example, if you completed 30% of your payment period or period of enrollment, you earn 30% of the assistance you were originally scheduled to receive. Once you have completed more than 60% of the payment period or period of enrollment, you earn all the assistance that you were scheduled to receive for that period. If you did not receive all of the funds that you earned, you may be due a post-withdrawal disbursement. If your post withdrawal disbursement includes loan funds, your school must get your permission before it can disburse them. You may choose to decline some or all of the loan funds so that you don't incur additional debt. Your school may automatically use a portion of your post-withdrawal disbursement of grant funds for tuition, fees, and room and board charges (as contracted with the school). The school needs your permission to use the post-withdrawal grant disbursement for all other school charges. If you do not give your permission, you will be offered the funds. However, it may be in your best interest to allow the school to keep the funds to reduce your debt at the school. There are some Title IV funds that you were scheduled to receive that cannot be disbursed to you once you withdraw because of other eligibility requirements.

For example, if you are a first-time, first-year undergraduate student and you have not completed the first 30 days of your program before you withdraw, you will not receive any Direct Loan funds that you

would have received had you remained enrolled past the 30th day. If you (or your school) receive excess Title IV program funds that must be returned, your school must return a portion of the excess equal to the lesser of the following: your institutional charges multiplied by the unearned percentage of your funds, OR the entire amount of excess funds. The school must return this amount even if it did not keep this amount of your Title IV program funds.

Any amount of unearned grant funds that you must return is called an overpayment. The maximum amount of a grant overpayment that you must repay is half of the grant funds you received or were scheduled to receive. You must make arrangements with your school or the Department of Education to return the unearned grant funds.

The requirements for Title IV program funds when you withdraw are separate from any refund policy that your school may have. Therefore, you may still owe funds to the school to cover unpaid institutional charges. You will be charged for any Title IV program funds you received, and that GateWay was required to return.

Maricopa Community Colleges Standards of Satisfactory Academic Progress (SAP) for Financial Aid Eligibility

To remain eligible for federal and state aid programs, students must meet all of MCCCDC's Satisfactory Academic Progress (SAP) standards regardless of whether a student has received financial aid in the past or not. These standards apply to a student's entire academic records at any MCCCDC college, including transfer credit hours accepted by the college.

1. Definitions and Terminology Pertaining to this Policy:

- a. Summer: Enrollment in the summer semester includes all courses scheduled within the summer enrollment period with all coursework counted in the SAP evaluation.
- b. Non-Standard Session/ Clock Hour: Sessions that do not follow the traditional start and end dates for the semester.
- c. Attempted Credit: Any credit for which a grade of A, B, C, D, F, I, IP, N, P, W, Y, or Z is received, and courses not yet graded.
- d. CGPA [Cumulative Grade Point Average]: The MCCCDC grading policy is published in the administrative regulations at 2.3.3. The CGPA does not include credits accepted in transfer.
- e. Financial Aid Warning: status assigned to an eligible payment period for the next enrolled semester after failing SAP GPA (2.0) and/or Completion Pace (1/3). Students not meeting maximum time frame evaluation are not eligible for a warning period.
- f. Appeal: A process by which a student who is not meeting the institution's satisfactory academic progress standards is eligible to appeal the institution for reconsideration of the student's eligibility for title IV, HEA program assistance based on extenuating circumstances.
- g. Extenuating Circumstance: A one-time (not on-going) circumstance that is beyond the reasonable control of the student

- h. Financial Aid Probation: A status assigned by an institution to a student who fails to make satisfactory academic progress and who has appealed and has had eligibility for aid reinstated. A student in this status may not receive title IV, HEA program funds for the subsequent payment period unless the student makes satisfactory academic progress or the institution determines that the student met the requirements specified by the institution in the academic plan for the student.
 - i. Academic Plan - A plan developed through the SAP Appeal Process which will lead a student to qualify for further title IV, HEA program funds and complete the program within 150% of published program length.
 - j. Financial Aid Suspension - The status assigned upon failing to meet the minimum SAP standards or the terms of probationary status. Students in this status are not eligible to receive title IV, HEA assistance.
2. Federal regulations (CFR 668.32(f) and 668.34) require institutions of higher education to evaluate Satisfactory Academic Progress (SAP) using qualitative (GPA) and quantitative (pace of progression) standards.
 3. Qualitative and quantitative measures of SAP are required to ensure students receiving Federal Student Aid are progressing towards the completion of a degree or certificate within an eligible program.
 4. Specific requirements for academic progress for Federal Student Aid recipients are applied differently than Scholastic Standards. Federal regulations state that SAP Standards must include a review of a period of enrollment, regardless of whether aid was received, or not. Standards are applicable for all enrolled payment periods, including all levels of enrollment (full-time or part-time enrollment). Students will be evaluated using the standards described below.
 5. Failure to meet any of the minimum standards outlined below will result in a student's loss of HEA, Title IV Federal Student Aid.

Evaluation Period

1. Standards of Satisfactory Academic Progress (SAP) will be evaluated at the end of each payment period. For credit hour programs a payment period is a semester (Fall, Spring, and Summer). For clock hour programs, a payment period / evaluation period depends on the hours required in the program. Standards of Satisfactory Academic Progress (SAP) are evaluated based on qualitative (GPA), quantitative (pace or progression), and maximum time frame. Failure to meet any of these standards may result in the loss of eligibility for financial aid. Grades of F, I, N, W, X, Y, Z, and courses not yet graded are considered attempted, but not completed in evaluating SAP. Late grades will be recalculated and may change eligibility.
 - a. Grade Point Average Qualitative Measurement: Students must maintain a 2.0 cumulative Grade Point Average in order to meet SAP GPA requirements.
 - b. Pace of Progression Quantitative Measurement: Students must successfully complete 2/3 (66.67%) of all attempted course work. For clock hour programs, please refer to program attendance requirements.

- c. **Maximum Time Frame Measurement:** Students must be able to complete their program within 150% of the published program length. Once students have attempted 150% of the published program length, they are no longer eligible for Federal Student Aid. For example, a 16-credit certificate program will allow up to 24 credit hours to complete the program. A 60 credit Associate's Degree will allow up to 90 credit hours to complete the program. (The time frame for clock hour students is 100% of the published program length.)
2. **Courses included in SAP evaluation:**
 - a. All attempted coursework, regardless of enrollment status
 - b. Courses funded through a Consortium Agreement
 - c. All attempted remedial credits, including English as a Second Language (ESL) courses.
 - d. Repeated course work
 - e. All transferred coursework
 - f. Grades attempted, but not completed (F, I, N, W, X Y, Z)
 3. **Coursework included in the Maximum Time Frame evaluation:**
 - a. All of those included in the Pace of Progression evaluation
 - b. Any Bachelor's degree (or higher) earned will be considered to have exhausted maximum time frame eligibility
 - c. All coursework forgiven through the Academic Renewal Process
 4. **Course work not included in SAP evaluation:**
 - a. Audited courses
 - b. Non-credit courses
 - c. Credit by examination
 - d. Credit for prior learning option (as outlined in the college general catalog)

Notification

Students who have applied for Federal Student Aid, but are not meeting Satisfactory Academic Progress requirements, will be notified via email of their FA Warning or ineligibility for financial aid. The notification will direct students to information regarding available college resources during the Warning Period and the appeal process in cases of extenuating circumstances.

Financial Aid Warning

Students are allowed a warning period upon failing Qualitative and/or Quantitative SAP standards. The warning period allows one (1) payment period (semester) of Federal Student Aid eligibility upon failing SAP. The warning period will follow the semester for which SAP was not met, meaning the next semester for which the student registers for classes. In order to receive the Warning period, students must be meeting Maximum Time frame requirements.

SAP Appeal

Any student who has lost federal student aid eligibility due to a resolved, one-time extenuating circumstance may appeal to have their financial aid reinstated by completing a Satisfactory Academic Progress Appeal Form. The form must address:

1. What caused the student's work to fail and supporting documentation.
2. Each incompleting/failed course.

3. Below acceptable standards-specific explanations must be provided, including how the extenuating circumstance has been resolved, and
4. How the student will maintain good academic standards and progress toward the degree if the appeal is granted.

The outcome of the appeal will depend upon:

1. The nature of the extenuating circumstances (if the stated circumstance qualifies as such),
2. The quality of the documentation provided, and
3. How well the student has demonstrated the ability to progress towards degree completion within a reasonable time period.

Documentation submitted is confidential. All decisions are final and cannot be appealed. For assistance in completing SAP appeal paperwork, including examples of supporting documentation, visit your college Financial Aid Office.

Students will be notified of the results of their appeal within 14 business days of filing the appeal. Notification will include any restrictions or conditions pertaining to their appeal. The outcome of an appeal may include a probationary period. Appeals granted longer than one payment period must include an academic plan, which must be followed. Failure to follow an approved academic plan will result in immediate suspension of Federal Student Aid. Students are responsible for any and all debt incurred as a result of this adjustment to financial aid. Failure to successfully complete all conditions during the probationary period (as defined in the academic plan) will result in loss of future financial aid eligibility.

Regaining Eligibility

A student who has lost financial aid eligibility may only regain eligibility by meeting the minimum SAP standards. Transfer coursework taken at other colleges will be considered for reinstatement purposes.

Honors Program

Location: Washington Campus, Administration & Faculty (AF) Building, Room AF 106

Phone: 602-286-8722

Email: honors@gatewaycc.edu

Website: <https://www.gatewaycc.edu/honors-program>

The Honors program is designed to enhance students' college experience and readiness by offering challenging opportunities to increase their academic, personal and professional potential. The program offers:

- Collaboration with faculty mentors
- Financial stipends and scholarships
- Engaging cultural and social activities
- Special recognition on transcripts and diplomas
- Individualized instruction through special projects•

At GateWay we offer flexibility in the selection of Honors credits as long as they meet a minimum of 3 credits (or more), the selected course is 100 level (or higher), and students obtain instructor permission. Our Honors program also offers two scholarship options:

- Presidents' Honors Scholarship is for students who graduated from a Maricopa County high school, earned an unweighted high school GPA of 3.25 or higher, apply for the honors program, and begin as a full-time honors student within three academic semesters of their high school graduation date. Students earn a tuition waiver for up to 15 credits per semester for a total of four semesters.
- Honors Achievement Award is for students enrolled in college credit courses who have a GPA of 3.25 (or higher) and have successfully earned 12 credits at any Maricopa college.

International Students

Location: Washington Campus

Phone: 602-286-8063

Email: iso@gatewaycc.edu

Website: <https://www.gatewaycc.edu/students/international-students>

We greatly enjoy having international students on our campus, and we look forward to welcoming you in person. The International Student Office determines F-1 international student admissions and assists admitted students with registration, on-campus employment, off-campus employment, health insurance, immigration, academic and cultural adjustment needs.

This school is authorized under Federal Law to enroll non-immigrant students.

All F-1 international students are encouraged to stop by and visit, exchange and share multicultural and life experiences with our diverse student community.

Concurrent Enrollment for F-1 International Students

The International Student Office at GateWay Community College provides International F-1 students the opportunity to take courses at two approved institutions at the same time. Get started by filling out the Student Admissions Application, and submitting the Concurrent Enrollment Form.

Admissions Process

To apply for admission to GateWay Community College, you will need to provide the following documentation. Please download the [International Admissions Application](#) and follow the instructions OR please [click here](#) to complete the International Admissions Application and submit the required documentation online.

Important: Please verify that your application package is complete before you send it and that you have followed all the instructions as described above. Failure to submit the documents as required will result in delay of the processing of your application. Please email or call if you need clarification of the application instructions. Please allow at least two to three weeks for review and processing of your application package.

Please send the completed application form and all required documents to:
 Attn: International Admissions
 GateWay Community College
 108 N. 40th St., Phoenix, Arizona 85034 USA

Do not send bank documents or school certificates by email as we require official, original documents.

When you have received your acceptance letter and SEVIS I–20 Form, please make an appointment to apply for the F–1 Student Visa at the US Consulate in your home country. To locate the US Consulate closest to you, please visit the US Embassy site at <https://www.usembassy.gov/>.

Learning Center

Location: Washington Campus, Integrated Education (IE) Building, Room IE 2108

Phone: 602-286-8800

Email: lctutoring@gatewaycc.edu

Website: <https://www.gatewaycc.edu/students/learning-center>

Hours: please visit website - <https://www.gatewaycc.edu/students/learning-center>

The Learning Center provides free academic support services for GateWay Community College students. Listed below are some of the services offered by the Learning Center.

Learning and Study Strategies

Consultation and instructional materials are available to assist students in the development and refinement of effective strategies for:

- Memorization
- Note taking
- Test preparation
- Test taking
- Textbook reading
- Time management

Learning Tools

The following learning tools are available for student use in the Learning Center:

- Anatomical models
- Microscopes and slides
- Calculators
- Supplemental textbooks

Open Computer Use

Desktop and laptop computers are available for student use in the Learning Center. They are equipped with Microsoft Office software, including Word, Excel, Access, and PowerPoint. All computers are connected to the Internet. Students can print for free in black and white.

Private and Group Study Rooms

The Learning Center houses three small study rooms for private or group use and two large study rooms for group use. These rooms can be reserved for two hours at a time.

Tutoring

In-person and virtual tutoring is available for currently enrolled GateWay Community College students. Drop-in tutoring for math, chemistry, biology, physics and writing is available during designated hours. Appointment-based one-on-one and group tutoring is provided in, but not limited to, the following subject areas:

- Accounting
- Anatomy and Physiology

- Biology
- Chemistry
- Communications
- English/Reading
- English as a Second Language
- Math
- Nursing
- Physics
- Writing for any course (including healthcare and clock programs)
- Math for any course (including healthcare and clock programs)

Contact the Learning Center to learn how to access these services.

Library

Location: Washington Campus, Integrated Education (IE) Building, IE 1115 - next to Gecko Espresso

Phones:

- 602-286-8454 Circulation/Account Information
- 602-286-8458 Reference/Research Assistance

Chat: <https://libguides.gatewaycc.edu/AskALibrarian>

Email: library@gatewaycc.edu

Website: <https://www.gatewaycc.edu/students/library>

Hours:

- Are subject to change and may vary when classes are not in session.
- Please check our website for up to date hours of service.

Get Connected!

The GateWay Library supports the college's educational programs and culturally diverse community by providing responsive service and accessible resources in a learner-centered environment.

Library Services:

- Reference and research assistance in person, by phone, email, or "Ask A Librarian" 24/7 chat
- Computer access, including laptops available for in-library use
- Group and individual study spaces and rooms
- Printers, photocopiers and scanner
- Course reserves (textbooks for in-library use)
- Wi-Fi hotspots and scientific calculators available for checkout
- Culture passes for free access to museums and performances
- One Button Studio and editing suite for media production.
- Locate and check out books, DVDs and more.
- My Account to see what you have checked out/due dates/holds status and more*
- Full-text databases of magazines, journals, newspapers, encyclopedias, and images*
- Try One Search! to search across multiple databases at once
- Full-text eBooks*
- Flipster digital magazines*
- Streaming media*

*Off-campus access to these services requires login with MEID and my.maricopa password.

Satisfactory Academic Progress

Federal regulations require a student to move toward the completion of a degree or certificate within an eligible program when receiving financial aid. Federal regulations state that Academic Progress Standards must include a review of all periods of enrollment, regardless of whether or not aid was received. Students will be evaluated using the standards described below. Failure to meet any of these minimum standards will result in loss of federal financial aid eligibility.

Satisfactory Academic Progress Information

- [Satisfactory Academic Progress \(SAP\) for Financial Aid Eligibility:](https://www.maricopa.edu/students/financial-aid/satisfactory-academic-progress-sap)
<https://www.maricopa.edu/students/financial-aid/satisfactory-academic-progress-sap>
- [SAP Warning FAQs:](https://www.maricopa.edu/students/financial-aid/satisfactory-academic-progress-sap)
<https://www.maricopa.edu/students/financial-aid/satisfactory-academic-progress-sap>
- [Standards of Satisfactory Academic Progress \(SAP for Credit and Clock Programs\)](https://www.maricopa.edu/students/financial-aid/satisfactory-academic-progress-sap)

Student Help Desk

Location: Washington Campus Booth, Integrated Education (IE) Building, Building outside the Library
Phones:

- 602-286-8413 x6
- 888-994-4433 24/7 Support

Chat: gatewaycc.edu/chat

Email: studenthelpdesk@gatewaycc.edu

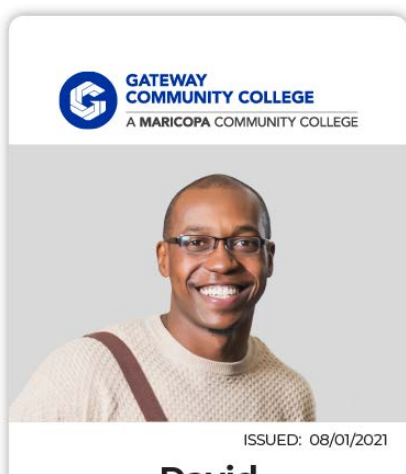
Website: <https://www.gatewaycc.edu/student-help-desk>

Hours: please visit website - <https://www.gatewaycc.edu/student-help-desk>

As a student, you will use and have a number of technology tools and software available to you throughout your academic journey.

During your journey, if you find that you need assistance with computer tasks like navigating Canvas, downloading the Lockdown Browser, and using the Google apps, just let us know. We can assist with most technology needs and if we cannot, we will find the resource for you. Meet with a tech virtually or face-to-face at your convenience. Give us a call to schedule time or drop by our booth.

Student ID Cards



We issue identification cards to all students and college employees. Identification cards help us in facilitating many processes and procedures, including building security and business transactions. There is no fee for the first identification card issued to you.

At this time, we are issuing IDs remotely, so all IDs will be mailed once you complete this [form and submit a photo for the ID](#).

When the form is filled out, a photo of yourself will need to be uploaded.

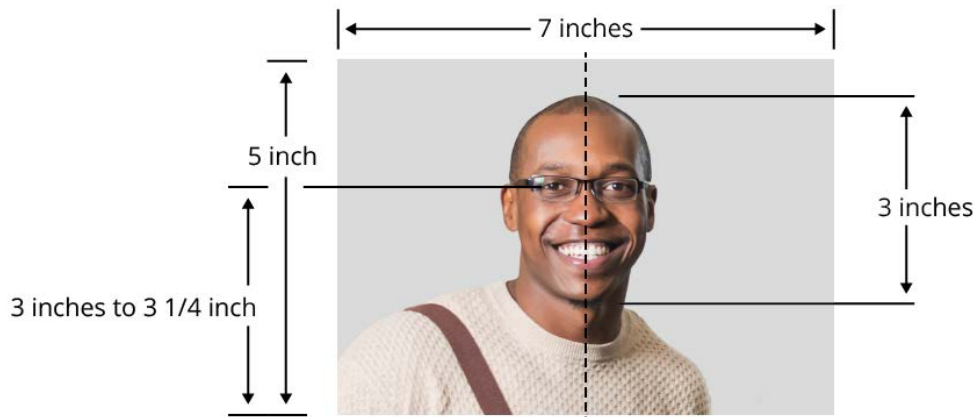
Photo ID Requirements

- Image Quality:
Your form may be rejected if the image does not meet requirements. We have the right to refuse any document or ask for additional documentation.

Please ensure that your uploaded photo meets the following requirements to avoid delays in obtaining your student ID card.

- Format: correct image file formats (.jpeg, .jpg, or .png)
- Background: Photos need to be taken against a white or off-white, plain background.
- Head position: Photo subjects must be fully facing the camera in their pictures.
- Expression: Individuals must display neutral smiles or expressions.
- Photo: does not have bad contrast, a bad crop, or goofy expression.
- Subject: does not have a hat, sunglasses, busy background, or is too dark.
- Digitally altered photos will not be accepted.

The following measurements are suggested:



Testing and Essential Skills Center

Location: Washington Campus, Integrated Education (IE) Building, IE 1252

Phone:

- 602-286-8160
- 602-286-8172 Testing Center Manager, Lisa Ford

Email: testing@gatewaycc.edu

Website: <https://www.gatewaycc.edu/students/testing-center/testing-essential-skills-center>

Hours:

- Fall and Spring: Monday-Thursday 8:00 a.m. - 5:00 p.m. and Friday 10:00 a.m. - 5:00 p.m.
- Summer: Monday-Thursday 8:00 a.m. - 5:00 p.m.

The testing center is currently BY APPOINTMENT ONLY for all in-person exams. However, [Maricopa EdReady.org](https://www.maricopa.edu/students/assessment-placement/edready) provides an online preparation tool to get you ready to take your placement assessments once we re-open. For additional info about placement, also visit:

- [Maricopa EdReady Support Page:](https://www.maricopa.edu/students/assessment-placement/edready)
<https://www.maricopa.edu/students/assessment-placement/edready>
- [Student-facing instructions](#) for using EdReady for placement
- The [District Placement website](#)
- [Policies During Pandemic--Assessment & Placement:](#)
<https://district.maricopa.edu/regulations/admin-regs/section-7/2-2-7>
- [Maricopa Prior Learning Assessment \(PLA\):](#)
<https://www.maricopa.edu/students/assessment-placement/prior-learning-assessment>
- [MCCCD Course Placement Chart](#)

The Student Testing and Essential Skills Center provides academic and vocational testing to help students accomplish their educational goals. If you do not have a high school diploma or [GED](https://ged.com/) (<https://ged.com/>) and you are planning on applying for financial aid, you must take the Reading, Writing and Math assessments in the same testing session.

The Testing Centers at the Washington and Central City campuses are [Authorized Pearson VUE Testing Sites](#). The Washington Campus is an [Authorized Kryterion Testing Site](#), and Authorized ISO-Quality Testing Site, as well.

For special accommodations, contact Disability Resources and Services (DRS) at 602-286-8171, disability.services@gatewaycc.edu, or visit <https://www.gatewaycc.edu/disability-resources>.

Assessment Policies and Procedures

- [Policies During Pandemic--Assessment & Placement:](#)
<https://district.maricopa.edu/regulations/admin-regs/section-7/2-2-7>
- Tests are not administered within TWO hours of closing.
- Referrals to the Assessment Center are made by program advisors, counselors or faculty members.
- Complete and submit a Student Admission Application prior to testing. Forms are available at Enrollment Services.
- A current picture ID is required.

- No children may be left unattended while a student is testing.
- testing@gatewaycc.edu or call us at 602-286-8160 for further information.
- Submit the optional Customer Satisfaction Evaluation by the end of the semester.

Veterans Services

Location: Washington Campus, Main (MA) Building, Room MA 1220

Phone: 602-286-8076

Email: veterans@gatewaycc.edu

Website: <https://www.gatewaycc.edu/students/veterans-services>

GateWay's Veterans Services Center assists military members, veterans, and dependent students take advantage of the numerous educational opportunities by connecting them to their VA Education Benefits, scholarships, and other support services necessary for their academic, professional, and personal success.

GateWay's Veterans Services Center is here to help:

- Veterans
- Active Duty Military Members
- Reserve and National Guard Military Members
- Military/Veteran Dependents

Veterans Services Center assists students with:

- Registration for classes
- Connection to scholarship opportunities
- Access and utilization of VA Education Benefits
- Utilization of Military Tuition Assistance
- Utilization of MyCAA Program for Military Spouse Career Advancement
- Deferment of tuition
- Connect with [Career Services](#)
- And many other accommodations

Instructional Divisions / Departments

Allied Health

Chair: Ahmad Pardazi

602-286-8514



- EDT** - Endoscopy
- EEG** - Electroneurodiagnostic (END) Technology
- HCC** - Health Core Curriculum
- HCS** - Hospital Central Service Technology
- HRC** - Healthcare Regulatory Compliance
- HSM** - Health Services Management
- OTA** - Occupational Therapy Assistant
- PON** - Operating Room Nursing
- PSG** - Polysomnographic Technology
- PTA** - Physical Therapist Assisting
- SGT** - Surgical Technology

Apprenticeships

Program Manager: Stephanie Stewart

602-238-0072



- CRP** - Carpentry
- ELC** - Electrical
- IRW** - Ironworking
- MWR** - Millwright

Arts, Humanities, Social & Behavioral Sciences

Interim Chair: Joseph Swaba
602-286-8374



AJS - Administration of Justice Studies
ARH - Art Humanities
ART - Art
ASB - Anthropology (Soc/Behav Sci)
ASM - Anthropology (Science/Math)
CFS - Child/Family Studies
COM - Communication
ECH - Early Childhood Education
EDU - Education
HIS - History
HUM - Humanities
PHI - Philosophy
POS - Political Science
PSY - Psychology
REL - Religious Studies
SOC - Sociology
STO - Storytelling
SWU - Social Work

Business and Information Technologies

Chair: Annette Torrey-Banks
602-286-8583



ACC - Accounting
BPC - Business-Personal Computers
CIS - Computer Information Systems
CLD - Cloud Computing
CNT - CISCO Networking Technology
CSC - Computer Science
ECN - Economics
GBS - General Business
ITS - Information Technology Security
MGT - Management
MKT - Marketing
MST - Microsoft Technology
SBU - Society and Business
TQM - Total Quality Management

Counseling

Chair: Sharon Zygowicz

602-286-8127



CAP - Counseling and Applied Psychology

CPD - Counseling/Personal Development

EXS - Exercise Science

FITNESS - Non-Credit Fitness

FYE - First Year Experience

HES - Health Science

PED - Physical Activities/Lifetime Fitness

WED - Wellness Education

Industrial Technology

Chair: Craig Urbanski

602-286-8616



ASE - Automotive Services

CON - Construction Management

FAC - Facilities Maintenance Technology

HVA - Heating, Ventilating, Air Conditioning and Refrigeration

MPT - Manufacturing Production Technology

OSH - Occupational Safety and Health

WRT - Environmental Science and Water Resources Technology

Literacy, Language and Literature

Interim Chair: Lauren Yena

602-286-8731

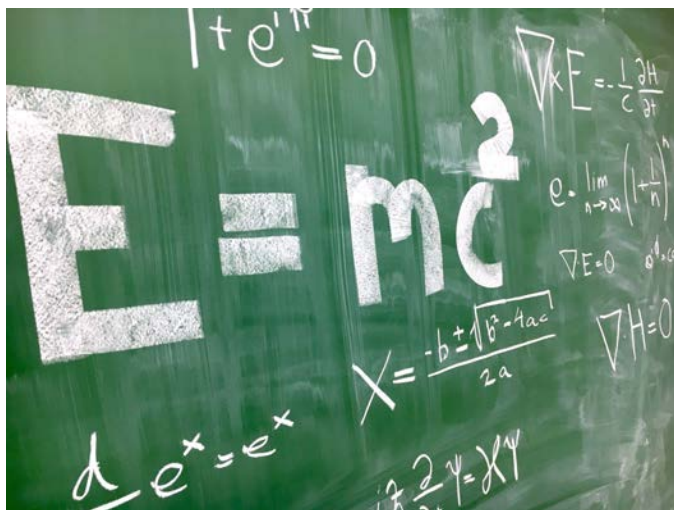


ALT - Academic Literacy
CRE - Critical Reading
ENG - English
ENH - English Humanities
ESL - English as a Second Language

Math & Sciences

Chair: Douglas Walker

602-286-8711



BIO - Biology
CHM - Chemistry
ECE - Engineering Science
FON - Food and Nutrition
GLG - Geology
GPH - Physical Geography
HON - Honors
MAT - Mathematics
PHY - Physics

Medical Imaging and Cardiopulmonary Sciences

Chair: Tabatha Hatfield
602-286-8483



DMS - Diagnostic Medical Sonography
ICE - Computed Tomography
ICE - Magnetic Resonance Imaging
NUC - Nuclear Medicine Technology
RAD - Radiologic Technology
RES - Respiratory Care

Nursing

Director: Jeri Lastine
602-286-8560



HCR - Health Care Related
NCE - Nursing - Continuing Education
NUR - Nursing

Trade & Technical Training Instructional Divisions

Beauty & Wellness

Program Manager: Aimee Blackman
602-392-5245



COS - Cosmetology
EST - Aesthetician
NLT - Nail Technician
PMP - Professional Massage

Healthcare

Program Manager: Jennifer Kline
602-392-5381



ECG - EKG Technician
EMC - Emergency Medical Tech
HMC - Billing & Coding
MDC - Medical Assisting
OPH - Ophthalmic
PLC - Phlebotomy
PHC - Pharmacy Tech

Trades & Technology

Program Manager:

602-238-4379



ABO - Collision Repair

ELR - Electrical

HVC - HVAC

MCP - Meat Cutting

MFC - CNC Machining

WTO - Welding Trades

Fast Track Certificates

The certificates listed below are designed to prepare students for professions with higher earning potential and more job opportunities. Some are also industry-recognized credentials that typically help qualify graduates for employment in specific fields.

Automotive Automatic Transmission and Transaxle

Automotive Brake Systems

Automotive Chassis

Automotive Drive Train

Automotive Electrical, Heating, Ventilation and Air Conditioning Systems

Automotive Electronic/Electrical Systems

Automotive Engine and Operations Management

Automotive Engine Repair

Automotive Heating, Ventilation and Air Conditioning Systems

Automotive Manual Drive Train and Axles

Automotive Steering and Suspension

Construction Trades: Electrical (Day) ⌄

Engine Performance and Diagnosis

Business, Entrepreneurialism, and Management

Aesthetics Instructor ⌄

Cosmetology Instructor ⌄

Entrepreneurial Studies Level I

Nail Technician Instructor ⌄

Security Industry Essentials: Pre-licensure

Small Business Management Level I

Computer and Information Technology

Amazon Web Services Cloud Practitioner

Android App Development

[Cisco Certified Network Professional: Enterprise Advanced Routing and Services](#)

[Cisco Certified Network Professional: Enterprise Core](#)

[Cisco Network Administration: CCNA](#)

[Computer System Configuration and Support](#)

[Computer System Configuration and Support, Linux](#)

[Computer System Configuration and Support, Network](#)

[Computer System Configuration and Support, Security](#)

[iOS App Development](#)

[Linux Associate](#)

[Linux System Administration](#)

[Microsoft Desktop Associate](#)

[Red Hat Linux Administrator](#)

[Red Hat Linux Engineer](#)

[VMware Foundations](#)

[VMware Systems Administrator](#)

[Web App Development](#)

[Windows App Development](#)

[Health Sciences](#)

[Accelerated Basic Phlebotomy \(Day\)](#) 

[Accelerated Basic Phlebotomy \(Night\)](#) 

[Accelerated Ophthalmic Medical Assistant](#) 

[Accelerated Pharmacy Technician](#) 

[Electrocardiogram \(ECG\) Technician](#) 

[Emergency Medical Services and Fire Preparatory Academy](#) 

[Emergency Medical Technology \(EMT\)](#) 

[Hazardous Materials Operations](#) 

[Nurse Assisting](#)

[Nursing Refresher](#)

[Operating Room Nursing](#)

[Phlebotomy Practicum](#) 

[Wildland Firefighter](#) 

Fields of Interest



APPLIED TECHNOLOGY

Applied Technology

Learn how to design, develop, or repair high-tech equipment and processes while getting hands-on, on-the-job experience.



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Behavioral Science and Human Services

Help people, serve your community, and improve the lives of those in need with a rewarding career in healthcare, counseling, and more.



BUSINESS, ENTREPRENEURIALISM, AND MANAGEMENT

Business, Entrepreneurialism, and Management

We've designed our Business, Entrepreneurialism, and Management pathway to give you the skills you need to be an economic and social leader.



COMPUTER AND INFORMATION TECHNOLOGY

Computer and Information Technology

Get the knowledge and real-world experience you need to excel in gaming, programming, tech support, web design, and more.



CULTURE AND SOCIETY

Culture and Society

Tackle complex global issues in a wide range of fulfilling career fields, from communication and sociology to history, economics, and beyond.



EDUCATION

Education

If you love learning and want to help students reach their potential, start your career as a teacher, instructional designer, administrator, and more.



HEALTH SCIENCES

Health Sciences

Help people live better, safer, healthier lives when you pursue a career as a nurse, EMT, physical therapist, personal trainer, and more.



STEM

Science, Technology, Engineering and Mathematics

Creatively solve problems and explore new frontiers with a challenging STEM career.



VISUAL AND PERFORMING ARTS

Visual and Performing Arts

Unleash your creativity while honing your craft as you pursue a career in visual art, design, dance, music, fashion, film, or theater.

Fields of Interest Matrix

Description

The Maricopa County Community College Field of Interest Matrix identifies all programs currently available for offering within the ten (10) community colleges and skill centers of the district. The programs are grouped under Field of Interest as requested by the colleges. For specific information regarding individual programs, contact the college(s) listed as participating institution

AREAS/PROGRAM	INSTITUTION
Applied Technology	
Air Conditioning and Electrical Accessories	GW
Air Conditioning/Refrigeration/Facilities	GW
Aircraft Maintenance Technology	CG
Aircraft Maintenance Technology-Airframe	CG
Aircraft Maintenance Technology-Powerplant	CG
Airway Science Technology, Flight Emphasis	CG
Applied Electrical Technologies	RS
Architectural and Civil CAD Technology	GC
Architectural Technology	SC
Automated Industrial Technology	EM MC
Automated Industrial Technology I	EM MC
Automated Industrial Technology II	EM MC
Automotive Automatic Transmission and Transaxle	GC GW MC
Automotive Brake Systems	GC GW MC
Automotive Chassis	GC GW MC
Automotive Drive Train	GC GW MC
Automotive Electrical, Heating, Ventilation and Air Conditioning Systems	GC GW MC
Automotive Electronic/Electrical Systems	GC GW MC
Automotive Engine and Operations Management	GC GW MC
Automotive Engine Management and Repair	GC GW MC
Automotive Engine Repair	GC GW MC
Automotive Heating, Ventilation and Air Conditioning Systems	GC GW MC
Automotive Maintenance and Light Repair	GC GW MC
Automotive Manual Drive Train and Axles	GC GW MC
Automotive Service	GC GW MC
Automotive Steering and Suspension	GC GW MC
Basic Automotive Maintenance	RS
Brakes, Alignment, Suspension and Steering	MC
Building Inspection	MC
Cable and Wire Harness Assembly	MC
CAD Application	GC
CAD Fundamentals	GC
Carpenter Apprenticeship	GW
Caterpillar Technician Training	MC
Certified Flight Instructor Instrument Airplane Rating	CG
Clean Energy Management	PC
CNC Machine Operator	GW MC
CNC Machining I	GW MC
CNC Machining II	GW MC
Collision Repair Technician	GW
Computer Aided Drafting	MC
Construction Building Codes	MC
Construction Management	MC
Construction Safety OSHA 30	MC

Construction Technology	MC SM
Construction Trades - Mechanical Trades: Pipefitting	GW
Construction Trades - Mechanical Trades: Plumbing	GW
Construction Trades - Mechanical Trades: Sheet Metal	GW
Construction Trades: Carpentry	GW MC RS SM
Construction Trades: Carpentry, Commercial and Residential	GW MC RS SM
Construction Trades: Construction Management	MC
Construction Trades: Electrical	GW MC RS SM
Construction Trades: Electrical, Commercial and Residential	GW MC RS SM
Construction Trades: Electricity	GW
Construction Trades: Heat and Frost Insulation	GW
Construction Trades: Ironworking	GW
Construction Trades: Millwrighting	GW
Construction Trades: Painting and Drywalling	GW
Construction Trades: Plumbing	GW MC RS SM
Construction Trades: Plumbing, Commercial and Residential	GW MC RS SM
Construction Trades: Pre-Apprenticeship	GW
Drafting and Design Technology	MC
Electrical Systems Technology	EM
Electrical Technology	GW
Electrical Technology - Commercial Wiring	GW
Electrical Technology - Industrial Wiring	GW
Electrical Technology: Residential Wiring	GW
Energy and Industrial Technology	EM
Engine Performance and Diagnosis	GW
Environmental Science and Water Resources Technologies	GW
Environmental Science Technology	GW
HVAC Commercial Installation and Service Technician	GW
HVAC Residential Installation and Service Technician	GW
Industrial Design Technology	GW
Industrial Design Technology: Design Specialist	GW
Industrial Sewing	PC
International Residential Code	MC
Introduction to Semiconductor Manufacturing	RS
J-STD Soldering Certification	MC
Lineman Technology Level I	RS
Lineman Technology Level II	RS
Lineman Technology Level III	RS
Lineman Technology Level IV	RS
Manufacturing Production Technology	MC
Mechanical Drafting	MC
Mechanical Systems Technology	EM
Millwrighting	GW
Nuclear Power Technology	EM
Precision Optics Level I	RS
Precision Optics Level II	RS
Quality Assurance	GW
Robotics Technology	EM MC
Salt River Project Relay Apprentice	MC
Semiconductor Manufacturing	RS
Unmanned Aircraft Systems	CG
Water and Wastewater Treatment	GW
Welding	MC
Welding: Fundamentals	GW MC
Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW)	MC
Welding: Gas Tungsten Arc Welding (GTAW) Ferrous	MC

Welding: Gas Tungsten Arc Welding (GTAW) Ferrous and Non-Ferrous	GW
Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous	MC
Welding: Shielded Metal Arc Welding (SMAW)	GW
Welding: Shielded Metal Arc Welding (SMAW) Pipe	GW MC
Welding: Shielded Metal Arc Welding (SMAW) Plate	MC
Behavioral Science and Human Services	
Addictions and Substance Use Disorders	RS
Addictions and Substance Use Disorders Level I	RS
Addictions and Substance Use Disorders Level II	RS
Administration of Justice	CG EM GC MC PC PV RS SC SM
Administration of Justice Studies	CG EM GC MC PC PV RS SC SM
Adolescent Studies	PC
Advanced Behavioral Sciences	GC SM
Advanced Corrections and Detention	RS
Advanced Juvenile Corrections	RS
Associate in Arts, Emphasis in Counseling and Applied Psychological Science	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Criminal Justice	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Family Life Education	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Law and Policy	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Political Science	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Psychology	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Social Work	CG EM GC GW MC PC PV RS SC SM
Basic Corrections	RS
Basic Detention	RS
Behavioral Sciences	GC SM
Child and Family Organizations Management and Administration	GC RS
Community Emergency Response Team (CERT): Level I	PC
Corrections	CG EM GC MC PC PV RS SC SM
Corrections and Detention	RS
Crime Scene Investigation	CG GC MC PC SC SM
Developmental Disabilities Specialist	GC
Driver Operator	GC MC PC PV
Emergency Communications	RS
Emergency Communications and Deployment	PC
Emergency Management	GC MC PC PV
Fingerprint Identification and Photography	CG GC MC PC SC SM
Fire Science	GC MC PC PV
Fire Service Management	GC MC PC PV
Firearms	RS
Firefighter Operations	GC MC PC PV
Forensic Science	CG GC MC PC PV SC SM
Foundations of Behavioral Sciences	GC SM
Hazardous Materials Response	PC
Homeland Security	CG GC PC RS SM
Juvenile Corrections	RS
Law Enforcement	CG EM GC MC PC PV RS SC SM
Law Enforcement Field Training	RS
Law Enforcement Investigation	GC RS
Law Enforcement Training	CG GC RS
Law Enforcement Training Academy	CG GC RS
Leadership in Public Safety Organizations	CG GC PC RS
Legal Studies	CG EM GC MC PC PV RS SM
Non-Sworn Fire Service Professional	GC MC PC PV
Paralegal	RS
Paralegal Studies	PC

Professional Addictions Counseling	RS
Public Safety Administration	PC RS
Public Safety Leadership	RS
Public Safety Technology	RS
Search Warrant Preparation	RS
Substance Use Prevention and Interventions	RS
Terrorism Liaison Training: Level I	PC
Terrorism Liaison Training: Level II	PC
Victimology	CG GC MC PC PV RS SM
Workforce Development and Community Re-Entry	RS
Workforce Development: Foundations in Addictions and Substance Use Disorders	RS

Business, Entrepreneurialism, and Management

Accounting	CG EM GC GW MC PC PV RS SC SM
Administrative Professional	EM GC GW MC PC PV SM
Advocate Driven Healthcare: Customer Service	RS
Aesthetician (24 Hours Per Week)	GW
Aesthetics Instructor	GW
Airline Operations	RS
Airline Operations: Reservations and Ticketing Services	RS
Apprentice Meat Cutter	GW
Associate in Business, General Requirements (ABUS-GR)	CG EM GC GW MC PC PV RS SC SM
Associate in Business, Special Requirements (ABUS-SR)	CG EM GC GW MC PC PV RS SC SM
Automobile Insurance Claims: Customer Service	RS
Automobile Insurance: Customer Service	RS
Automobile Insurance: Policy Services	RS
Automobile Insurance: Sales	RS
Automobile Insurance: Sales Service	RS
Bank Account Management: Customer Service	RS
Banking and Finance	GW PC
Beauty and Wellness	GW MC
Broadband Telecommunications	RS
Broadband Telecommunications: Field Operations	RS
Business Administration Fastrack	GC MC PC SC
Business Technology Specialist	GW
Business Technology: Customer Service	RS
Cannabis Business Administration and Management	SC
Cannabis Business Advanced Entrepreneurship	SC
Cannabis Business Fundamentals	SC
Certified Bookkeeping	GC PC PV RS SC
Commercial Baking and Pastry	EM PC SC
Commercial Real Estate	GC MC SC SM
Cosmetologist (32 Hours Per Week)	GW
Cosmetology Instructor	GW
Credit Counseling: Customer Service	RS
Culinary Arts	EM SC
Culinary Arts I	EM SC
Culinary Arts II	EM SC
Culinary Fundamentals	SC
Debt Resolution: Customer Service	RS
Debt Resolution: Sales	RS
Enrolled Agent	CG GC MC PC PV RS SC SM
Entrepreneurial Studies Level I	GC GW MC PC PV RS SC SM
Entrepreneurial Studies Level II	GC GW MC PC RS SC SM
Esports	CG GC PC PV RS SM
Fashion Merchandising	MC PC

Financial Industry	GW
Financial Service	CG GC GW MC PC PV SC SM
Financial Services Retirement Accounts: Customer Service	RS
General Business	CG EM GC GW MC PC PV RS SC SM
Hair Stylist (32 Hours Per Week)	GW
Hospitality: Golf Management	SC
Hospitality: Hotel Management	SC
Hospitality: Meeting and Event Management	SC
Hospitality: Restaurant Management	SC
Hospitality: Spa and Wellness Center Management	SC
Hospitality: Tourism Development and Management	SC
Human Resources Management	GC GW MC PC RS SC SM
Insurance: Customer Service	RS
Licensed Residential Appraiser	MC
Loan Consolidation: Customer Service	RS
Management	CG GC MC PC PV RS SC SM
Marketing	GC GW MC PC PV SC SM
Marketing and Sales	GC GW MC PC PV SC
Massage Therapy (24 Hours Per Week)	GW
Nail Technician	GW
Nail Technician Instructor	GW
Organizational Leadership	CG EM GC GW MC PC PV RS SC SM
Organizational Management	CG EM GC GW MC PC PV RS SC SM
Prescription Prior Authorization: Customer Service	RS
Project Management	MC
Property Insurance: Customer Service	RS
Public Administration	RS
Quality Customer Service	RS
Real Estate: Prelicense	GC MC RS SC SM
Residential Appraisal Trainee	MC
Retail Management	CG EM GC GW MC PC RS SC SM
Retail Pharmacy: Customer Service	RS
Risk Management and Insurance	MC RS SC
Security Industry Essentials: Pre-licensure	CG GC GW PC SC
Small Business Management II	CG GC GW MC PC RS
Small Business Management Level I	CG EM GC GW MC PC RS
Small Business Start-Up	CG PV
Social Media Marketing	CG EM GC MC PC PV SC SM
State Service Leadership: ADOT Leads	GW
Telecommunications Collections: Customer Service	RS
Utilities: Customer Service	RS
Water Services: Customer Service	RS
Web Hosting: Customer Service	RS
Computer and Information Technology	
Adobe Foundations: Animation and Graphics Production	CG GC MC PV SM
Adobe Foundations: Audio and Video Production	MC SM
Amazon Web Services Cloud Associate	CG GC GW MC PC PV SC SM
Amazon Web Services Cloud Practitioner	CG GC GW MC PC PV SC SM
Amazon Web Services Cloud Specialist	CG GC GW MC PC PV SC SM
Android App Development	CG GW MC PC RS SM
Associate in Science, Emphasis in Computer Science	CG EM GC GW MC PC PV RS SC SM
Blockchain Technology	RS
Cisco Certified Network Professional: Enterprise	CG GC GW MC PV SC SM
Cisco Certified Network Professional: Enterprise Advanced Routing and Services	CG GC GW MC PV SC SM
Cisco Certified Network Professional: Enterprise Core	CG GC GW MC PV SC SM

Cisco Network Administration and Security	CG EM GC GW MC PV SC SM
Cisco Network Administration: CCNA	CG EM GC GW MC PC PV SC SM
Cisco Network Administration: CCNP	CG GC MC PC SC SM
CompTIA A+ Certification Prep	GW
CompTIA Security+ Certification Prep	GW
Computer Information Systems	GW
Computer Support Specialist	GW
Computer System Configuration and Support	CG EM GC GW MC PC PV RS SC SM
Computer System Configuration and Support, Linux	CG EM GC GW MC PC PV SC SM
Computer System Configuration and Support, Network	CG EM GC GW MC PC PV RS SC SM
Computer System Configuration and Support, Security	CG EM GC GW MC PC PV RS SC SM
Critical Infrastructure	EM GC
Cross Functional Design and Web Essentials	SC
Cross-Platform App Development	GW MC PC RS SM
Cyber Engineering	CG EM GC MC PC PV RS SC SM
Cyber Operations	CG GC GW MC PV SM
Cybersecurity	CG EM GC GW MC PC PV RS SC SM
Cybersecurity Fundamentals	CG EM GC GW MC PC PV RS SC SM
Data Analytics	CG EM GW MC PV RS SC
Data Analytics and Programming	MC
Database Development	EM MC SC
Desktop Support	CG EM GC GW MC PC PV RS SC SM
Foundations of Mobile App Development	MC PC RS SM
Information Security	GC
Information Security Technology	GC
Information Technology	CG EM GC GW MC PC PV RS SC SM
iOS App Development	CG GC GW MC PC PV RS SC SM
IT Security Associate	EM
Kubernetes Administration	CG MC
Kubernetes Application Development	CG MC
Kubernetes Security	CG MC
Linux Associate	CG EM GC GW MC PC PV SC SM
Linux System Administration	CG EM GC GW MC PC PV SC SM
Microsoft Desktop Associate	CG EM GC GW MC PC PV SC SM
Microsoft Office Professional	CG EM GC GW MC PC PV RS SC SM
Microsoft Office Specialist	CG GC GW MC PV RS SC SM
Microsoft System Administration	CG GC MC PC PV
Mobile App Development	MC PC PV RS SC SM
Native Mobile App Development	MC PC PV RS SM
Network and Cyber Fundamentals	GW
Network and Systems Administration	CG EM GC GW MC PC PV SC SM
Network Specialist	GW
Network Support Specialist	GW
Network Support Technician	GW
Oracle Database Operations	CG
Programming	RS SM
Programming and Systems Analysis	CG EM GC MC PC PV RS SC
Programming and Systems Analysis Level I	CG EM GC MC PC PV RS SC
Programming and Systems Analysis Level II	CG EM GC MC PC PV RS SC
Python Applications	CG MC SM
Red Hat Linux Administrator	CG EM GC GW MC PC PV SC SM
Red Hat Linux Engineer	CG EM GC GW MC PC PV SC SM
Security Specialist	GW
Video Game Production	GC MC PV
Video Game Production: Audio and Sound	GC MC PV
Video Game Production: Coding and Scripting	GC MC PV

Video Game Production: Game Art	GC MC PV
Video Game Production: Game Narrative	GC MC PV
VMware Foundations	EM GC GW MC PC SC
VMware Network Administrator	CG EM GC MC
VMware Systems Administrator	EM GC GW MC PC SC
Web App Development	CG GC GW MC PC PV RS SM SC
Web Design	CG EM GC MC PV RS SC SM
Web Design/Development	CG EM GC MC PC PV RS SC SM
Web Development	CG EM GC GW MC PC PV SC SM
Web Foundations	CG EM GC MC PC PV RS SC SM
Windows App Development	GW MC PC RS SM

Culture and Society

African-American Studies	MC
American Indian Studies	MC PC SC
Applied Bilingual Spanish Language Skills	SM
Applied Storytelling	EM SM
Associate in Arts, Emphasis in American Indian Studies	CG EM GC GW MC PC PV SC SM
Associate in Arts, Emphasis in Anthropology	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Communication	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Economics	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in English (Creative Writing)	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in English (Literature)	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in History	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Humanities	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Information Studies and eSociety	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Japanese	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Journalism and New Media Studies	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Philosophy	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Religious Studies	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Sociology	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Spanish	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Women and Gender Studies	CG EM GC GW MC PC PV RS SC SM
Chicana and Chicano Studies	CG GC PC
Communication Competence in the Workplace	GC MC
Communication Skills for Non-Native English Speakers	GC MC
Creative Writing	CG EM GC MC PC PV RS
Deaf Studies	PC
Foundations of Storytelling	EM SM
Global Citizenship	MC
International Studies	PC
Interpreter Preparation	PC
Journalism and New Media Studies	MC
Language and Literary Culture of the USA	RS
Language Studies	CG GC MC RS
Oral Communication Fluency for Non-Native English Speakers	GC MC
Public Relations	MC
Southwest Studies	PC
Spanish Language and Culture	CG MC RS
Sustainability and Ecological Literacy	EM RS SM
Sustaining and Advancing Indigenous Nations	SC
Traditional and Fact-Based Storytelling	EM SM
Women and Gender Studies	CG MC

Education

Associate in Arts, Elementary Education (AEEE)	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Early Childhood Education	CG EM GC GW MC PC PV RS SC SM

Associate in Arts, Emphasis in Educational Studies Early Childhood	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Secondary Education	CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Secondary Education	CG EM GC GW MC PC PV RS SC SM
Early Childhood Education	CG GC MC PC PV RS
Early Childhood Education - Dual Language	MC
Early Childhood Education Management and Administration	PV RS
Elementary Education and Special Education	GC PV RS
Foundations of Early Childhood Education	CG EM GC MC PC PV RS
Gifted Education	EM
Infant and Toddler Development	GC PV RS
Instructional Assistance	MC SM
K-12 eLearning Design	RS
K-12 Online Teaching	RS

Health Sciences

Accelerated Ophthalmic Medical Assistant	GW
Accelerated Pharmacy Technician	GW
Associate in Arts, Emphasis in Community Health	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Exercise Science	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Nutritional Science	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Speech and Hearing Science	CG EM GC GW MC PC PV RS SC SM
Basic Phlebotomy	GW PC
Clinical Data Coordination	PV
Clinical Medical Assisting	PC
Clinical Phlebotomy	PC
Clinical Research Coordination	PV
Community Health Paramedicine	GC MC PC PV
Community Health Work	PV SC
Computed Tomography	GW
Critical Care Paramedicine	GC MC PC PV
Dental Assisting	PC
Dental Hygiene	MC PC RS
Diagnostic Medical Sonography	GW
Electrocardiogram (ECG) Technician	GW
Electroneurodiagnostic (END) Technology	GW
Emergency Medical Services and Fire Preparatory Academy	GW
Emergency Medical Technology	CG GC GW MC PC PV RS
Emergency Medical Technology Comprehensive	CG GC MC PC PV
Endoscopy	GW
Exercise Science: Health, Fitness, and Sports Performance	CG GC MC PV SC SM
Fast Track Practical Nursing	GC GW MC
Foundations of Community Health Work	SC
Foundations of Recreation Management	SC
Foundations of Sports Medicine	RS
Health and Wellness Coaching	GC
Health Information Technology	PC
Health Information: Long Term Care Settings	PC
Health Science Education	GW
Health Services Management	GW
Healthcare Regulatory Compliance	GW
Healthcare Technology Systems	PV
Histologic Technology	PC
Hospital Central Service Technology	GW
Laboratory Assisting	PC
Law Enforcement Phlebotomy	GW
Law Enforcement Phlebotomy Refresher Course	GW

Magnetic Resonance Imaging	GW
Massage Therapy	PC
Medical Administrative Assisting	PC
Medical Assisting	GW PC
Medical Billing and Coding: Physician-Based	GW PC
Medical Coding: Hospital-Based	PC
Medical Interpreter - Spanish	GW
Medical Laboratory Science	PC
Musculoskeletal Sonography	GW
Nuclear Medicine Technology	GW
Nuclear Medicine Technology and Computed Tomography	GW
Nurse Assisting	GC GW MC PV SC
Nursing	CG EM GC GW MC PC PV SC
Nursing Refresher	GW MC
Nutrition and Dietetic Technology	PV
Nutrition for Personal Trainers and Coaches	SC
Occupational Therapy Assistant	GW
Operating Room Nursing	GW
Ophthalmic Medical Administrative Assistant Apprenticeship	GW
Ophthalmic Medical Assistant	GW
Ophthalmic Medical Assistant Apprenticeship	GW
Paramedicine	GC MC PC PV
Personal Training	CG GC MC PV SC SM
Personal Training: Advanced	CG GC MC PV SC SM
Pharmacy Technician	GW
Pharmacy Technology	GW PV SC
Phlebotomy	GW
Physical Therapist Assisting	GW
Practical Nursing	CG EM GC GW MC PC PV SC
Radiologic Technology	GW
Recreation Management	SC
Respiratory Care	GW
Sleep Medicine (Polysomnographic) Technology	GW
Spanish Interpreting for Healthcare Professionals	GW
Spanish Interpreting for Healthcare Professionals (6 hours/week)	GW
Speech Language Pathology Assistant	EM
Surgical Technology	GW
Sustainable Food Systems	RS
Sustainable Food Systems: Food Entrepreneur	RS
Sustainable Food Systems: Food Service	RS
Tactical Emergency Casualty Care	GC MC PC PV
Workforce Development: Introduction to Sustainable Food Systems	RS
Yoga Instruction	SC

Science, Technology, Engineering and Mathematics

Artificial Intelligence and Machine Learning	CG EM
Associate in Arts, Emphasis in Geography	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Mathematics	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Sustainability and Environmental Studies	CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Astronomy	CG EM GC GW MC PC PV SC SM
Associate in Science, Emphasis in Biochemistry	CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Biological Sciences	CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Chemistry	CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Engineering	CG EM GC GW MC PC PV SC SM
Associate in Science, Emphasis in Geography - Meteorology	CG EM GC GW MC PC PV SC SM
Associate in Science, Emphasis in Geology	CG EM GC GW MC PC PV RS SC SM

Associate in Science, Emphasis in Physics	CG EM GC GW MC PC PV RS SC SM
Biomedical Equipment Technology	MC
Biotechnology and Molecular Biosciences	GC
Electronics Engineering Technology	MC
Electronics Technology	MC
Engineering Technology	CG EM GC PV SM
Environmental and Natural Resource Conservation	PC
Environmental and Natural Resource Stewardship	PC
Equine Science	SC
Food Science and Technology I	SM
Food Science and Technology II	SM
Geographic Information Science	PC
Geospatial Technologies	MC
Landscape Aide	MC
Landscape Horticulture	MC
Landscape Specialist	MC
Mortuary Science	CG
Sustainability	CG GC MC PV RS SC SM
Sustainable Agriculture	MC
Veterinary Assisting	MC
Veterinary Technology	MC

Visual and Performing Arts

Alteration Specialist	MC PC
Animation	GC MC PC
Animation and Time-Based Media	GC MC PC
Apparel Construction	MC PC
Associate in Arts, Fine Arts	CG EM GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Art	CG EM GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Dance	CG GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Music	CG EM GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Musical Theatre	CG EM GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Theatre	CG EM GC GW MC PC PV SC SM
Audio Production Technologies	GC MC PC PV
Beginning Piano Pedagogy	MC
Ceramics	MC
Commercial and Freelance Photography	GC PC
Costume Design and Production, Level I	MC PC
Costume Design and Production, Level II	PC
Dance Performance and Technology	SC
Digital Arts: Digital Photography	CG MC
Digital Media Arts	GC PC
Disc Jockey Techniques	MC
Disc Jockey Techniques I	MC
Disc Jockey Techniques II	MC
Documentary Film Production	GC
Drawing and Painting	MC
Editing	SC
Fashion Design	MC PC
Fashion Design: Entrepreneur	PC
Fashion Design: Level I	MC PC
Fashion Design: Level II	PC
Fashion Illustration	PC
Film and Media Production	GC
Graphic Design	MC PC
Illustration	CG MC PC

Illustration and Sequential Art	CG MC PC
Image Consultant	MC
Interior Design	PC SC
Interior Design Kitchen and Bath	PC SC
Interior Design Professional	SC
Interior Design Technology	PC SC
Interior Design Upholstery and Soft Goods Production	PC
Interior Merchandising and Home Staging	PC SC
Intermediate Piano Pedagogy	MC
Motion Picture Production	SC
Motion Picture, Television, and New Media Production	SC
Music Business I	GC MC PC PV SM
Music Business II	GC MC PC PV SM
Music Industries: Music Business	GC MC PC PV SM
Pattern Design, Level I	PC
Pattern Design, Level II	PC
Photography	CG GC MC PC
Retail Sales Manager	MC
Screenwriting	SC
Sequential Art	CG MC PC
Stage Combat	PV
Technical Theatre	MC PC SC
Technical Theatre: Audio Technician	GC MC PC PV
Technical Theatre: Cosplay I	MC
Technical Theatre: Cosplay II	MC
Technical Theatre: Costuming	GC MC PC PV
Technical Theatre: Hair and Makeup	MC
Technical Theatre: Lighting	MC PC PV
Technical Theatre: Properties	MC PC PV SC
Technical Theatre: Puppetry	MC PC PV
Technical Theatre: Set/Scenic Construction	MC PC
Technical Theatre: Stage Crew Technician	GC MC PC PV SC
Textile and Apparel: Fashion Stylist	MC
Time-Based Media	MC PC
Visual Communication	SC
Visual Communication: Creative Branding	SC
Visual Communication: Design	SC
Visual Communication: Digital Process Management	SC

[Find a Class / Class Search](#)

Search for classes here: <https://classes.sis.maricopa.edu/> and then add them to your schedule in the [Student Center](#).

All new degree-seeking students are required to take a First Year Experience (FYE) course. [Discover which one is right for you!](#)

Tips for Finding Your Classes at <https://classes.sis.maricopa.edu/>

- Enter a course prefix and number combination to find that specific course. For example, "MAT151" will return College Algebra/Functions classes.
- You can enter a course prefix/subject to show class offerings for the group of courses that begin with that prefix. Entering "BIO" will return all biology classes.
- Providing search terms like "emergency medical" will find classes that include those words in the title or descriptions. This type of search matches whole words only.
- By default, the search limits to "Open" classes for the selected semester.
- Select a college to show only the college in which you are enrolled.
- Expand the More Search Options part of the form to further refine searches.

[Flexible Start Dates](#)

Missed the start of the spring semester? You are in luck. GateWay has several courses and programs that start in January, February, and March! You may enroll in these options throughout the semester and are available in-person, online, and in a hybrid format. Learn more about these dynamic learning experiences by visiting:

<https://www.gatewaycc.edu/enroll/flex-start>. Flexible start dates help you succeed in your academic endeavors.

[Shared Unique Number System \(SUN\)](#)

The SUN is a college course numbering system designed to help Arizona students plan their education and ensure successful transfer of course credits. The SUN system is a special bank of courses that have direct equivalency at all Arizona public community colleges and universities. Tens of thousands of other Arizona college courses also transfer— check the Course Equivalency Guide (CEG):

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/CEG> to search for additional transferable courses.

How SUN course Numbering Works: <https://aztransfer.com/sun/>

SUN courses have a unique three-letter prefix and four-digit course number that represents direct course equivalency at all Arizona public community colleges and universities. Each institution retains its original course numbers but uses the SUN to indicate commonality.

Example:

College Algebra has several different prefixes and numbers at the community colleges and universities. Using SUN, all of the courses will share a unique number and a single prefix: SUN# MAT 1151. This unique number/prefix indicates course equivalency at all institutions! When students enroll in a SUN course, they know that your credit will be accepted at any Arizona college.

Find Sun Courses

You can also use the [Course Equivalency Guide](#) (CEG) to find SUN courses at your community college or university. SUN courses are also listed in your community college catalogs online and in print.

Explore Learning Options

8 Tips for Online Success

Online, remote and hybrid classes are designed for your needs. If you work during the day or have a more complex schedule, you can complete your classes online. Classes are available in most fields of interest.

Do you need a challenge? Online classes are definitely more challenging than traditional classes as time management is key to your success.

Do you need extra support? Personal communication is very important, even more so in an online course. Please email your teacher or utilize the online free tutoring (Brainfuse), call the Learning Center at (602) 286–8800 to speak to a tutor, or call the HelpDesk (602) 286–8411, Ext. 2) still available in online courses. You don't have to sacrifice your life to get an education; learn more about online now!

Online students will be using [Canvas](#), our Learning Management System (LMS). Canvas allows online students access to course content, calendar, grade book, discussion boards, online quizzes, and other course materials. Current students can log in below or at <https://learn.maricopa.edu/> by entering their MEID and password.

In Person (Face-To-Face)

Courses utilize the traditional method of classroom instruction with the class meeting at a specified day, time, and location.

Hybrid

Courses are a combination of traditional in person and online instruction. Students and instructors will meet face-to-face in a classroom/lab setting for a portion of the required time as well as online for the remaining instructional time.

Live Online

Courses have sessions that meet online on specific days and times. Similar to in person classes, the class times will be listed in the schedule, but will be held in an online environment.

Hybrid/Virtual

Courses have part of the course online without a set time to attend. The other part will occur at the time listed in the class schedule using a virtual platform like webex, zoom, or google meets.

Online (Internet)

Courses are conducted online via a course management system (currently Canvas) and flexible on your time.

Flexibility

Busy schedule? Our online classes could give you the flexibility you need. Use our online assessment survey, view the orientation video and learn what you need to do to be successful.

- Within class schedules, complete work on your time
- Ideal for those with daytime commitments
- Accommodates students with changing schedules
- Good time management is critical

Quality

GateWay offers you an affordable alternative to large universities while also delivering great value. With our highly qualified faculty and small classes, instructors are able to get involved and enrich your learning experience.

- Discover the advantages of our supportive faculty
- Student interaction promotes collaborative learning
- Online and on-campus classes are designed by the same instructor
- GateWay is fully accredited, which ensures students can transfer credits and obtain financial aid
- eLearning classes are as challenging as traditional classes

Support

As a GateWay student, you will have a lot of support. We have a full-time Helpdesk to assist you as well as a variety of tools you can use. The library and learning center will also help you to find what you need, including access to tutoring.

Free Online Learning Readiness Course

Are you ready for online classes or remote learning?

Take this survey to determine if you are better suited to learn on campus or [online class readiness survey: https://www.gatewaycc.edu/students/online-learning-assessment](https://www.gatewaycc.edu/students/online-learning-assessment).

To help you succeed in an online course, make sure you possess the following:

- Access to an up-to-date computer and high-speed internet
- Self-motivated and disciplined (commit to 6-9 hours a week per three-credit-hour class)
- Comfortable and confident with the written expression as it pertains to online course discussion, i.e. giving and receiving peer feedback

Be patient for feedback from instructors (especially over a weekend; check instructor's syllabus for turn-around time, etc.)

To aid in your online learning, the GateWay Online Learning Essentials course provides you with the basics you need to understand the intricacies of online courses. It covers technology, Canvas, student support and so much more. You may go to [Canvas](#) to self-enroll in this course.

Need assistance?

Our Student Help Desk is available

- Virtually: Monday – Friday, 7 a.m. – 5 p.m.
- In-Person: (Located in IE Building – Outside of Library) Monday – Friday, 8 a.m. – 3 p.m.
- (602) 286–8413 x6
- For 24/7 Support: (888) 994–4433
- Email: studenthelpdesk@gatewaycc.edu

First-Year Experience (FYE)

Welcome to Maricopa Community Colleges! As of the Fall 2022 semester, all new students will be required to take a First Year Experience (FYE) course. These courses are a degree requirement for Maricopa Community Colleges students who are beginning any degree or transfer program.

Every Student Will Need to Pick From One of the Following Options:

FYE101

FYE101 is a 1-credit course designed to help students learn how to succeed at your Maricopa Community College. You will explore your field of interest, confirm your program or degree pathway, understand the financial considerations for your career, and meet with your advising team.

Are you a student who:

- is returning to college and needs to focus on completing a degree or transferring to a 4-year university?
- is transferring from another college but new to Maricopa?
- is confident in your chosen program of study and would like to take a deeper dive into your respective field of interest?
- recently completed high school or another early college program and feels on track for your next steps in Maricopa?
- is paying out of pocket and needs to consider every option?

If the majority of the above apply to you, then FYE 101 is right for you!

[Find FYE101 Classes](#)

FYE103

FYE103 is a 3-credit course that is similar to FYE101, but it also helps students determine what program is best for them, provides strategies for school/life balance, assists in preparing students for

work in a diverse world, and provides opportunities for students to build connections.

Are you a student who:

- is new to college and unsure/anxious around college expectations and available resources?
- is undecided on your major or field of interest and needs some help researching and considering the best options for you and your future?
- is concerned about taking math, English or other pre-requisite courses that align with your major and need to have additional information on how to be successful throughout the first year?
- has been out of school/college for more than 3 years and/or is concerned about your ability to manage work, school, family, and life?
- needs to meet full-time enrollment requirements for financial aid or scholarships and is concerned about taking more than 4 classes?
- would benefit from understanding of how you prioritize your finances while a college student and after you graduate?
- is interested in learning about resources available to support your academic pathway, like transportation, child care, housing, and/or additional financial assistance?
- is interested in understanding your own identity better and how to appreciate differences in your peers?

If the majority of the above apply to you, then FYE 103 is right for you!

[Find FYE103 Classes](#)

MCCCD Graduation and Degree Information

Bachelor's Degrees - Academic Policies

The Maricopa County Community College District (MCCCD) offers bachelor's degrees designed for students to complete their undergraduate studies in high demand workforce areas as outlined in A.R.S. [§15-1444.01](#):

<https://www.azleg.gov/viewdocument/?docName=https://www.azleg.gov/ars/15/01444-01.htm>.

Bachelor of Applied Science (BAS) Degree

A Bachelor of Applied Science (BAS) is an undergraduate college degree that focuses on integrating hands-on experiences and job-related skills into a comprehensive plan of study. BAS programs provide opportunities primarily for students who have earned Associate of Applied Science (AAS) degrees or the equivalent to advance their education with minimal loss of credit. The upper division requirements typically build on the foundational applied sciences courses of a related AAS degree to add contextual, theoretical, analytical and/or managerial perspective to a specific field of study. The BAS degree requires completion of a minimum of 120 credits. The Bachelor of Applied Science degree is designed to prepare students for employment and career advancement and can provide the educational foundation for graduate studies.

Bachelor of Science (BS) Degree

A Bachelor of Science is an undergraduate college degree that requires students to complete a core of general education courses as well as requirements and electives that have an emphasis on an aspect of mathematics and/or the sciences. The BS degree requires completion of a minimum of 120 credits. The BS prepares students to continue their education in pursuit of a graduate degree, complete requirements for disciplinary certification, and/or pursue careers in a wide variety of related fields.

Bachelor of Arts (BA) Degree

A Bachelor of Arts is an undergraduate college degree that requires students to complete a core of general education courses along with requirements and electives related to a major such as fine arts, humanities, social sciences, business, or education. The BA degree requires completion of a minimum of 120 credits. The Bachelor of Arts degree prepares students to continue their education at the graduate level, complete requirements for disciplinary certification, and/or pursue a wide variety of careers.

Bachelor of Arts (BA) Degree

Maricopa County Community College District (MCCCD) 2023-2024 Bachelor of Arts (BA) Degree

Description

The Maricopa County Community College District Bachelor of Arts (BA) degree requires a minimum of 120 semester credits for the program of study; minimum total credits vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums for individual degree programs. A minimum grade point average of 2.0 and course grades of C or higher are required to earn the degree.

The Bachelor of Arts degree includes the following components:

- I. Program Prerequisites (if applicable)
- II. Required Courses
- III. Restricted Electives
- IV. Arizona General Education Curriculum for Arts (AGEC-A)
- V. MCCCD Additional Requirements (Oral Communication)
- VI. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Bachelor of Arts (BA) degree is an undergraduate college degree that requires students to complete a core of general education courses and then focus remaining coursework on a core and electives in a major such as fine arts and humanities, business, or education. The Bachelor of Arts degree prepares students to continue their education at the graduate level, complete requirements for disciplinary certification, and/or pursue a wide variety of careers.

Degree Requirements

The requirements for the Bachelor of Arts (BA) follow. No versions of the Bachelor of Arts require fewer than a minimum of 120 credits; however, minimum credits for a BA may vary by specific major. Additionally, a minimum of 30 credits of coursework must be completed at the upper-division (300/400 level). Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums by major.

The following websites identify the courses that apply to the different General Education Core and Awareness Areas: [AGEC-A](#) and the [AGEC matrix](#). Courses available for both Areas during a current or upcoming semester can also be found using the “[Find a Class](#)” tool on maricopa.edu and on each MCCCD college’s website.

Requirements

I. **Program Prerequisites**

Program prerequisites for the Bachelor of Arts degree vary by major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major.

Credits
Number Varies

II. **Required Courses**

Students who have not already earned an associate or higher degree, must complete FYE101 (1) OR FYE103 (3) and select the required courses for the

Number Varies

specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major

III.	Restricted Electives	Number Varies
	Restricted electives for the Bachelor of Arts degree vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major.	
IV.	Arizona General Education Curriculum--Arts (AGEC-A)	Up to 44
	The AGEC-A requires a minimum of 35 credits (32 if FYC is met by single transfer course)*. However, prerequisite/required/restricted elective courses may also meet AGEC-A requirements but are only counted once toward the total credits for the degree. Therefore, the AGEC-A may be met with fewer than 35 credits (fewer than 32 if FYC is met by single transfer course)* as long as all requirements listed in this section (IV) are completed.	
	Courses applied to meet AGEC-A requirements vary by major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well other AGEC requirements, Required Course(s) or Restricted Elective(s). Courses may meet more than one requirement but are only counted once toward the total credits for the degree. AGEC designations are subject to change.	
	See AGEC matrix for each course's value(s) in the semester it is taken.	
	A. First-Year Composition [FYC] ENG101 OR ENG107 AND ENG102 OR ENG108	6* (3)* (3)*
	B. Literacy and Critical Inquiry [L] May be met by CRE101 among other courses	3
	C. Mathematical Applications [MA] Requires a course in college mathematics (MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or precalculus(MAT187) or higher [MA]-approved general education course.	3-6
	D. Computer/Statistics/Quantitative Applications [CS]	3
	E. Humanities, Arts and Design [HU] Students are encouraged to choose course work from more than one discipline.	6
	F. Social-Behavioral Sciences [SB] Students are encouraged to choose course work from more than one discipline.	6

G. Natural Sciences [SQ/SG]	8
<p>The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement.</p>	
H. Awareness Areas	0-6
<p>Courses may be used to satisfy other AGEC requirements and one or more Awareness Area(s). (See AGEC matrix for current course values.)</p>	
1. Cultural Diversity in the United States [C]	(0-3)
2. Global Awareness [G] OR Historical Awareness [H]	(0-3)
V. MCCCD Additional Requirements	0-3
<p>As noted below, courses in this area may also be applied toward AGEC-A requirements.</p>	
A. Oral Communication	0-3
<p>COM100 [SB] Introduction to Human Communication OR COM110 [SB] Interpersonal Communication OR COM225 [L] Public Speaking OR COM230 [SB] Small Group Communication (3 credits) OR COM100AA & COM100AB & COM100AC [SB] (3 credits) OR COM110AA & COM110AB & COM110AC [SB] (3 credits) OR COM263 [SB], [C], [G] Elements of Intercultural Communication (3 credits)</p>	
VI. General Electives	Number Varies
<p>Select courses 100-level or higher if needed to complete a minimum of 120 semester credits. Ideally, students should select courses that meet requirements for their major/area of interest and graduate-level transfer institution.</p> <p>Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC). For appropriate course selection, students should consult with an academic advisor</p>	
Total	120**

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

**120 semester credits is the minimum of 120 credits; however, minimum credits for a BA may vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums by major.

Bachelor of Science (BS) Degree

Maricopa County Community College District (MCCCD) 2023-2024 Bachelor of Science (BS) Degree

Description

The Maricopa County Community College District Bachelor of Science (BS) degree requires a minimum of 120 semester credits for the program of study; minimum total credits vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums for individual degree programs. A minimum grade point average of 2.0 and course grades of C or higher are required to earn the degree.

The Bachelor of Science degree includes the following components:

- I. Program Prerequisites (if applicable)
- II. Required Courses
- III. Restricted Electives
- IV. Arizona General Education Curriculum for Arts (AGEC-A) OR Arizona General Education Curriculum for Science (AGEC-S) (refer to the Program (Degree) Search at curriculum.maricopa.edu for the specific AGEC requirements by major)
- V. MCCCD Additional Requirements (Oral Communication)
- VI. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

A Bachelor of Science (BS) is an undergraduate college degree that requires students to complete a core of general education courses and then includes remaining coursework on requirements and electives that have an emphasis on math and science. The Bachelor of Science prepares students to continue their education in pursuit of a graduate degree, complete requirements for disciplinary certification, and/or pursue careers in a variety of fields.

Degree Requirements

The requirements for the Bachelor of Science (BS) follow. No versions of the Bachelor of Science require fewer than a minimum of 120 credits; however, minimum credits for a BA may vary by specific major. Additionally, a minimum of 30 credits of coursework must be completed at the upper-division (300/400 level). Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums by major.

It is recommended that students select courses that meet more than one general education and/or awareness area requirement. Doing so will maximize the number of math and science electives the student can take as part of the student's Bachelor of Science degree.

The following websites identify the courses that apply to the different General Education Core and Awareness Areas: [AGEC-A](#), [AGEC-S](#), and the [AGEC matrix](#). Courses available for both Areas during a current or upcoming semester can also be found using the "Find a Class" tool on maricopa.edu and on each MCCCD college's website.

Requirements

- I. Program Prerequisites

**Credits
Number varies**

Program prerequisites for the Bachelor of Science degree vary by major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major.

- | | | |
|------|--|---|
| II. | Required Courses
Students who have not already earned an associate or higher degree, must complete FYE101 (1) OR FYE103 (3) and select the required courses for the specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major. | Number varies |
| III. | Restricted Electives
Restricted electives for the Bachelor of Science degree vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major. | Number varies |
| IV. | Arizona General Education Curriculum--Arts (AGEC-A)
The AGECA requires a minimum of 35 credits (32 if FYC is met by single transfer course)*. However, prerequisite/required/restricted elective courses may also meet AGECA requirements but are only counted once toward the total credits for the degree. Therefore, the AGECA may be met with fewer than 35 credits (fewer than 32 if FYC is met by single transfer course)* as long as all requirements listed in this section (IV) are completed.

Courses applied to meet AGECA requirements vary by major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well other AGECA requirements, Required Course(s) or Restricted Elective(s). Courses may meet more than one requirement but are only counted once toward the total credits for the degree. AGECA designations are subject to change.

See AGEC matrix for each course's value(s) in the semester it is taken. | Up to 44* |
| | A. First-Year Composition [FYC]
ENG101 OR ENG107 AND
ENG102 OR ENG108 | 6*
(3)*
(3)* |
| | B. Literacy and Critical Inquiry [L]
Students are strongly encouraged to choose an [L] course that also has [HU] or [SB] designation or to use COM225 from the Maricopa Additional Requirements Area to satisfy the [L] requirement. It may also have been approved to satisfy one or more Awareness Areas ([C], [G], [H]). (AGECA designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.) | 3 |
| | C. Mathematical Applications [MA] | 3-6 |

Requires a course in college mathematics (MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or precalculus (MAT187) or higher [MA]-approved general education course.

- | | |
|---|------------|
| D. Computer/Statistics/Quantitative Applications [CS] | 3 |
| E. Humanities, Arts and Design [HU]
Students are encouraged to choose course work from more than one discipline. | 6 |
| F. Social-Behavioral Sciences [SB]
Students are encouraged to choose course work from more than one discipline. | 6 |
| G. Natural Sciences [SQ/SG]
The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement. | 8 |
| H. Awareness Areas | 0-6 |
| Courses may be used to satisfy other AGEC requirements and one or more Awareness Area(s). (See AGEC matrix for current course values.) | |
| 1. Cultural Diversity in the United States [C] | (0-3) |
| 2. Global Awareness [G] OR Historical Awareness [H] | (0-3) |

OR

Arizona General Education Curriculum--Science (AGEC-S) up to 56

The AGEC-S requires a minimum of 36 credits (33 if FYC is met by single transfer course)*. However, prerequisite/required/restricted elective courses may also meet AGEC-S requirements and credits count once toward the total for the degree. Therefore, the AGEC-S may be met with fewer than 36 credits (33 if FYC is met by single transfer course)* as long as all requirements listed in this section (IV) are completed.

Courses applied to meet AGEC-S requirements vary by major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGEC requirements, Required Course(s) or Restricted Elective(s). Courses may meet more than one requirement but are only counted once toward the total credits for the degree. AGEC designations are subject to change.

Special Academic Policies that Govern the AGEC-S

- The AGEC-S does not require a course with [CS] Computer/Statistics designation.
- Unlike the AGEC-A and AGEC-B, the same course is allowed to satisfy the ([L] and [HU]) or ([L] and [SB]) areas of the AGEC-S's Core Area. The credits for such a "shared" course are only counted one time toward the required minimum for the degree.

See [AGEC matrix](#) for each course's value(s) in the semester it is taken.

- | | |
|---|--|
| <p>A. First-Year Composition [FYC]
ENG101 OR ENG107 AND
ENG102 OR ENG108</p> | <p>6*
(3)*
(3)*</p> |
| <p>B. Literacy and Critical Inquiry [L]
Students are strongly encouraged to choose an [L] course that also has [HU] or [SB] designation or to use COM225 from the Maricopa Additional Requirements Area to satisfy the [L] requirement. It may also have been approved to satisfy one or more Awareness Areas ([C], [G], [H]). (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)</p> | <p>0-3**</p> |
| <p>C. Mathematical Applications [MA]
Requires the first semester of calculus courses designed for scientists and engineers (MAT220 or MAT221) or any other [MA] designated course for which Calculus I is a prerequisite.</p> | <p>4-5</p> |
| <p>D. Humanities, Arts and Design [HU]
For the AGEC-S, a single course with both [HU] and [L] designations may satisfy both Areas. Note that some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area(s). (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)</p> | <p>6</p> |
| <p>E. Social-Behavioral Sciences [SB]
For the AGEC-S, a single course with both [SB] and [L] designations may satisfy both Areas. Note that some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area(s). (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)</p> | <p>6</p> |
| <p>F. Natural Sciences [SQ/SG]
Students must complete eight (8) to ten (10) credits of General Chemistry, University Physics, General Biology for Majors, or Physical and Historical Geology. Consult with an academic advisor for specific requirements of university transfer majors for guidance.
[(CHM150 or CHM151) & CHM151LL] or</p> | <p>8</p> |

CHM150AA or CHM151AA General Chemistry I AND
 [CHM152 & CHM152LL] or CHM152AA General Chemistry II OR
 PHY115 or PHY121 University Physics I AND
 PHY116 or PHY131 University Physics II
 OR
 BIO181 or BIO181XT General Biology (Majors) I AND
 BIO182 or BIO182XT General Biology (Majors) II OR
 GLG101IN Introduction to Geology I - Physical or GLG101 Introduction to
 Geology I - Physical Lecture and GLG103 Introduction to Geology I –
 Physical Lab
 AND
 GLG102IN Introduction to Geology II – Historical or GLG102 Introduction
 to Geology II - Historical Lecture and GLG104 Introduction to Geology II –
 Historical Lab

G. Subject Options - Math/Science **8-10**
 Select six (6)- ten (10) additional math and/or science credits that meet
 requirements for the selected major.

Select Mathematics course(s) [MAT] above Calculus I and/or Computer
 Science course(s) [CSC] and/or Science courses from the following
 disciplines: Astronomy, Biology, Botany, Chemistry, Engineering,
 Environmental Science, Geology, Physical Geography, Physics, Zoology
 (MCCCD prefixes AST, BIO, CHM, ECE, EEE, ENV, GLG, GPH, and/or
 PHY)

H. Awareness Areas **6-10**
 Courses may be used to satisfy other AGEC requirements and one or
 more Awareness Area(s). (See [AGEC matrix](#) for current course values.)
 1. Cultural Diversity in the United States [C] 0-6
 2. Global Awareness [G] OR Historical Awareness [H] (0-3)

V. **MCCCD Additional Requirements** **0-3**
 As noted below, courses in this area may also be applied toward AGEC-A
 requirements.

A. Oral Communication 0-3
 COM100 [SB] Introduction to Human Communication OR
 COM110 [SB] Interpersonal Communication OR
 COM225 [L] Public Speaking OR
 COM230 [SB] Small Group Communication (3 credits) OR
 COM100AA & COM100AB & COM100AC [SB] (3 credits) OR COM110AA
 & COM110AB & COM110AC [SB] (3 credits) OR
 COM263 [SB], [C], [G] Elements of Intercultural Communication (3
 credits)

VI. **General Electives** **General Number**

Select courses 100-level or higher if needed to complete a minimum of 120 semester credits. Ideally, students should select courses that meet requirements for their major/area of interest and graduate-level transfer institution.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC). For appropriate course selection, students should consult with an academic advisor.

Total

120***

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

** (0 only if shared with HU or SB)

*** 120 semester credits is the minimum of 120 credits; however, minimum credits for a BA may vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums by major.

Bachelor of Applied Science (BAS) Degree

Maricopa County Community College District (MCCCD) 2023-2024 Bachelor of Applied Science (BAS)

Description

The Maricopa County Community College District Bachelor of Applied Science (BAS) degree requires a minimum of 120 semester credits for the program of study; minimum total credits vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums for individual degree programs. A minimum grade point average of 2.0 and course grades of C or higher are required to earn the degree.

The Bachelor of Arts degree includes the following components:

- I. Program Prerequisites (if applicable)
- II. Required Courses
- III. Restricted Electives
- IV. Arizona General Education Curriculum for Arts (AGEC-A)
- V. MCCCD Additional Requirements (Oral Communication)
- VI. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

A Bachelor of Applied Science is an undergraduate college degree that focuses on providing hands-on experiences and incorporating job-related skills into the classroom. It is designed to be flexible in order to accommodate and meet the unique demands of industry in specific workforce sectors. Bachelor of Applied Science degrees typically build on the curriculum requirements for an Associate of Applied Science (AAS) degree, meaning that all of the requirements for the AAS degree are either included in, or receive full recognition and credit within, the BAS program requirements. Students in the BAS take a majority of their courses in the applied sciences, specializing in a specific area and the degree is designed to prepare students for employment and career advancement, as well as can provide the foundation for graduate school.

Degree Requirements

The requirements for the Bachelor of Applied Science (BAS) follow. No versions of the Bachelor of Applied Science require fewer than a minimum of 120 credits; however, minimum credits for a BAS may vary by specific major. Additionally, a minimum of 30 credits of coursework must be completed at the upper-division (300/400 level). Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums by major.

The following websites identify the courses that apply to the different General Education Core and Awareness Areas: [AGEC-A](#) and the [AGEC matrix](#). Courses available for both Areas during a current or upcoming semester can also be found using the “[Find a Class](#)” tool on maricopa.edu and on each MCCCD college’s website.

Requirements

- I. **Program Prerequisites**

**Credits
Number varies**

Program prerequisites for the Bachelor of Science degree vary by major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major.

II. **Required Courses** **Number varies**
 Students who have not already earned an associate or higher degree, must complete FYE101 (1) OR FYE103 (3) and select the required courses for the specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major.

III. **Restricted Electives** **Number varies**
 Restricted electives for the Bachelor of Arts degree vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major.

IV. **Arizona General Education Curriculum--Arts (AGEC-A)** **Up to 44***
 The AGEC-A requires a minimum of 35 credits (32 if FYC is met by single transfer course)*. However, prerequisite/required/restricted elective courses may also meet AGEC-A requirements but are only counted once toward the total credits for the degree. Therefore, the AGEC-A may be met with fewer than 35 credits (fewer than 32 if FYC is met by single transfer course)* as long as all requirements listed in this section (IV) are completed.

Courses applied to meet AGEC-A requirements vary by major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well other AGEC requirements, Required Course(s) or Restricted Elective(s). Courses may meet more than one requirement but are only counted once toward the total credits for the degree. AGEC designations are subject to change.

See [AGEC matrix](#) for each course's value(s) in the semester it is taken.

- | | |
|---|---|
| A. First-Year Composition [FYC]
ENG101 OR ENG107 AND
ENG102 OR ENG108 | 6*
(3)*
(3)* |
| B. Literacy and Critical Inquiry [L]
May be met by CRE101 among other courses. | 3 |
| C. Mathematical Applications [MA]
Requires a course in college mathematics (MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or precalculus(MAT187) or higher [MA]-approved general education course. | 3-6 |
| D. Computer/Statistics/Quantitative Applications [CS] | 3 |

E.	Humanities, Arts and Design [HU] Students are encouraged to choose course work from more than one discipline.	6
F.	Social-Behavioral Sciences [SB] Students are encouraged to choose course work from more than one discipline.	6
G.	Natural Sciences [SQ/SG] The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement.	8
H.	Awareness Areas Courses may be used to satisfy other AGEC requirements and one or more Awareness Area(s). (See AGEC matrix for current course values.) 1. Cultural Diversity in the United States [C] 2. Global Awareness [G] OR Historical Awareness [H]	0-6 (0-3) (0-3)
V.	MCCCD Additional Requirements As noted below, courses in this area may also be applied toward AGEC-A requirements.	0-3
A.	Oral Communication COM100 [SB] Introduction to Human Communication OR COM110 [SB] Interpersonal Communication OR COM225 [L] Public Speaking OR COM230 [SB] Small Group Communication (3 credits) OR COM100AA & COM100AB & COM100AC [SB] (3 credits) OR COM110AA & COM110AB & COM110AC [SB] (3 credits) OR COM263 [SB], [C], [G] Elements of Intercultural Communication (3 credits)	(0-3)
VI.	General Electives Select courses 100-level or higher if needed to complete a minimum of 120 semester credits. Ideally, students should select courses that meet requirements for their major/area of interest and graduate-level transfer institution. Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC). For appropriate course selection, students should consult with an academic advisor.	Number varies
Total		120**

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

***120 semester credits is the minimum of 120 credits; however, minimum credits for a BA may vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums by major.

Associate Degrees Designed for University Transfer - General Academic Policies for

Maricopa County Community College District (MCCCD)

2023-2024 General Academic Policies for Associate Degrees Designed For University Transfer

The following academic policies govern the associate degrees designed for university transfer: Associate in Arts (AA); Associate in Arts, Elementary Education (AAEE); Associate in Arts, Fine Arts (AAFA); Associate in Business-General Requirements (ABUS-GR); Associate in Business-Special Requirements (ABUS-SR); and Associate in Science (AS). Note that academic policies that govern the Associate in General Studies (AGS) and Associate in Applied Science (AAS) degrees are listed separately, with the requirements for each of those degrees.

- The graduation policies within the general catalog must be satisfied (administrative regulation 2.3.9).

First Year Experience required (FYE101 or FYE103)

- Minimum semester credits for completion vary slightly by degree and specific emphasis (when applicable). Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums for individual degree programs.
- Credits completed toward these minimums must be in courses numbered 100 or above with a grade of “C” or better. These credits must include a minimum of 35* in satisfaction of the requirements of the Arizona General Education Curriculum (AGEC) along with a maximum of 6 credits towards MCCCD’s Additional Requirements.
- Detailed degree requirements are maintained by the Center for Curriculum and Transfer Articulation (CCTA); refer to the program search at curriculum.maricopa.edu.

General Education Requirements:

- The AGEC requirements include a designated number of courses approved for each of the following areas:
 - First Year Composition [FYC]
 - Mathematical Applications [MA]
 - Computer/Statistics/Quantitative Applications [CS] (not required for Associate in Science)
 - Literacy and Critical Inquiry [L]
 - Humanities, Arts and Design [HU]
 - Social-Behavioral Sciences [SB]

- Natural Sciences: Science Quantitative [SQ], Science General [SG]
 - Awareness Area: Cultural Diversity in the U.S. [C]
 - Awareness Area: Global [G] or Historical [H] Awareness
- Note that there are three different AGECS each aligning with a different subset of associate degrees--AGEC-A for the AA, AAEE, and AAFA degrees; AGEC-B for the ABUS-GR and ABUS-SR degrees; and AGEC-S for the AS degree. For some types of AGECS/Associate degrees, students are allowed to choose from a broad list of courses; for others the courses are more restricted or even specified.
 - A single course can simultaneously count toward one or more areas in the following. Awareness Areas of [C]; and/or [H]/[G] may be shared with AGEC requirements. MCCC Additional Requirements e.g. Oral Communication and Critical Reading may be shared with other AGEC requirements. For example, CRE101 may be used to satisfy both the MCCC Reading Requirement and [L] in the AGEC core. For some degree types, other lower division courses can be used to meet the degree requirements.
 - While multiple requirements can be met with a single course, the credits are only counted one time toward the required minimum for the degree. Except for the AGEC-S, a single course cannot be used to satisfy more than one AGEC core requirement, with the exception of Awareness Areas. For example, a course cannot be used to satisfy [HU] and [SB], but a course can be used to meet [HU] and [C], [G] and/or [H].
 - The AGEC-A and AGEC-B require a minimum of 35 credits* and the AGEC-S requires a minimum of 36 credits*; however, the AGEC credit count within the total credits for a degree may be under these minimums if courses are also applied toward Required Courses or Restricted Electives and the credits are counted in those areas. Awareness Areas and MCCC's Additional Requirements may also be shared with AGEC Core Areas. Optimizing credits in this way is often recommended because some programs and universities limit transferable credits at 64.
 - All MCCC courses applied to the AGEC must be completed with a grade of "C" or better. All MCCC courses applied to the AGEC must be accepted for transfer credit as a direct equivalent, departmental elective, or general elective credit at ASU, NAU, and UAZ according to the Course Equivalency Guide for the academic year in which the course was taken. Courses applied exclusively to the Bachelor of Applied Science are ineligible for inclusion in the AGEC.

Coursework beyond General Education:

- For some degree types, the additional coursework required to complete the degree is specified while others offer the student more latitude. See degree checksheets for more complete description. Consultation with an academic advisor about course selection is always recommended.
- Oral Communication and Critical Reading are MCCC Additional Requirements required for Associate in Arts; Associate in Arts, Elementary Education; Associate in Arts, Fine Arts; and Associate in Science degrees. Refer to the Program (Degree) Search at

curriculum.maricopa.edu for acceptable options to meet these requirements for individual degree programs.

- Within the Restricted Electives, course recommendations are made for specific transfer institutions. Students should select a transfer plan (group of courses) based on their intended transfer institution. However, not all transfer institutions are reflected in these recommendations. Therefore, students may instead meet the minimum number of Restricted Elective credits using a combination of courses from the transfer plans listed. Restricted Electives should be selected in consultation with an academic, faculty, or program advisor.
- Note that some majors require up to a 4th semester proficiency (202-course level) in a non-English language. Students should consult with an academic advisor to discuss options to complete these requirements.
- General Electives may need to be selected to meet the minimum total credits required for the degree. Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives, (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer advisement information is accessible on the following websites: aztransfer.com/tools, curriculum.maricopa.edu, as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.
- Any course cross-referenced under another prefix(es) (for example ENH291/EDU291-Children's Literature) covers identical content and its credits can only be counted once toward requirements.

Transfer Credit from Institutions Outside of MCCCCD:

- Credits transferred from outside of MCCCCD must be at a grade of "C" (2.0 on a 4.0 scale) or better. Transfer credit graded pass/fail or pass/no credit may be used to satisfy AGEC requirements if documentation collected by the community college indicates that this was the only grading option available and that the Pass grade ("P") is equivalent to a "C" or better.
- External courses evaluated either as equivalent to an MCCCCD course or as elective credit may be applied toward the minimum credits for degree completion.
- The AGEC (Arizona General Education Curriculum) designations of courses completed at other Arizona public colleges or universities will be applied as listed on [AZTransfer's Course Equivalency Guide](#) (CEG) for the semester(s) in which the course(s) were completed. If a transcript evaluation determines there is no MCCCCD direct equivalency to a course from another Arizona public college or university, applicability to AGEC and/or associate degree requirements will be based on the source institution's AGEC designation for the semester in which the course was completed.

- Courses from private, out-of-state, and/or online institutions (i.e., outside of the Arizona Transfer System composed of Arizona's public community colleges, tribal colleges and universities) will be applied toward AGEC and/or associate degree requirements based on the courses' evaluated MCCCDCD equivalence. If courses are not directly equivalent, the credit may be articulated as a departmental elective, and if deemed appropriate, may have a general education designation applied to the course.
- Credit awarded at a Maricopa Community College through prior learning assessment is transferable to the other colleges in the district but is not necessarily transferable to other colleges and universities. No more than 20 such assessed semester credit hours may be applied toward AGEC, and no more than 30 credits (including up to 20 toward AGEC) may be applied toward a degree.

Completion and Transfer:

- Completion of the AGEC with a minimum Grade Point Average of at least 2.0 on a 4.0 scale for Arizona residents and 2.50 for non-residents meets Arizona public university general admission requirements. It does not ensure admission to specific university majors or programs with selective admission processes and/or limited enrollment.
- While MCCCDCD's associate degrees are designed to facilitate a seamless transfer to other Arizona institutions, courses may be transferable and/or meet associate degree requirements, but may not necessarily meet the specific requirements of a particular degree, major, or area of emphasis at another institution.

Students planning to transfer to another college or university are urged to refer to university requirements and academic advisors from both institutions to be certain that all their selected coursework is applicable to the requirements of their intended transfer degree and within their allowed transferable credit limit. For some majors, the statewide Common Course matrix and AZTransfer Major Guides at aztransfer.com/tools/ and/or university transfer guides can also provide some guidance. For appropriate course selection, students should consult with an academic advisor.

*Credit minimums may be lower if students have transfer credit from ASU, NAU or UAZ for a single course that meets First Year Composition in full. See notes on individual degree policies.

Arizona General Education Curriculum (AGEC) - A, B, S

Maricopa County Community College District (MCCCD) 2023-2024 Arizona General Education Curriculum (AGEC) – A, B, S

Description

The Maricopa County Community College District Arizona General Education Curriculum (MCCCD AGEC) is a general education certificate that fulfills lower-division general education requirements for students planning to transfer to any Arizona public community college or university. Generally, the MCCCD AGEC transfers as a block without loss of credit. In most cases, all courses used to satisfy the MCCCD AGEC will apply to graduation requirements of the university major for which the AGEC was designed.

As described below, the AGECS are a component of most MCCCD associate degrees and comparable degrees at other Arizona public community colleges. The AGEC-A defines the general education requirements in the Associate in Arts (AA), Associate in Arts, Elementary Education (AAEE), and the Associate in Arts, Fine Arts (AAFA) degrees. The AGEC-B defines the general education requirements in the Associate in Business-General Requirements (ABUS-GR) and Associate in Business-Special Requirements (ABUS-SR) degrees. The AGEC-S defines the general education requirements in the Associate in Science (AS) degree.

As described in more detail below, all AGECS require designated courses in First Year Composition [FYC], Literacy and Critical Inquiry [L], Mathematical Studies [MA], Social-Behavioral Sciences [SB], Humanities, Design and Fine Arts [HU], and Natural Science [SQ/SG]. Students must satisfy two Awareness areas as well: Cultural Diversity in the U.S. and either Global Awareness or Historical Awareness. In addition, the AGEC-A and AGEC-B require a Computer/Statistics/Quantitative Applications course [CS] that is not required for students pursuing the AGEC-S.

Purpose of the AGECS

AGECS were designed to articulate with different academic majors at the state universities, and their particular requirements vary accordingly. In some major-specific pathways, students are allowed to choose from a broad list of courses to satisfy the AGEC requirements, and for others the courses are more restricted or even specified. Additional information on academic majors at the Arizona public universities can be accessed via the following website: aztransfer.com/tools

1. The AGEC-A is designed to satisfy General Education requirements in many liberal arts majors as well as other majors that articulate with an Associate in Arts degree (e.g., social sciences, fine arts, humanities, elementary education). AGEC-A requires a minimum of college mathematics or college algebra to satisfy the Mathematics [MA] requirement.
2. The AGEC-B is designed to satisfy requirements in business majors that articulate with the Associate in Business (ABUS-GR, ABUS-SR). AGEC-B requires a minimum of brief calculus to satisfy the Mathematics [MA] requirement.
3. The AGEC-S is designed to satisfy requirements in majors with more prescriptive mathematics and mathematics-based science requirements such as many in the sciences, technology, engineering and mathematics. AGEC-S requires a minimum of the first course in a calculus

sequence to satisfy the Mathematics [MA] requirement, and a minimum of eight (8) credits of either university chemistry, university physics, general biology for majors, or physical and historical geology to satisfy the Natural Sciences [SQ/SG] requirement. In addition, students must select six (6)- to ten (10) additional credits of Subject Options composed of math and/or science appropriate to their major.

Academic Policies that Govern the AGEC A, B, S

- Requires completion of at least 35 credit hours* (for AGEC-A and AGEC-B) and 36 credit hours* (for AGEC-S) in courses numbered 100 and above that have been approved for one or more AGEC designations; a minimum of 12 of those credits must be completed at one or any combination of the MCCCDC colleges. See First Year Composition [FYC] notes in the following AGEC descriptions and footer for credit minimum exceptions.*
- All MCCCDC courses applied to the AGEC must be completed with a grade of “C” or better.
- All MCCCDC courses applied to the AGEC must be accepted for transfer credit as a direct equivalent, departmental elective, or general elective credit at ASU, NAU, and UAZ according to the [Course Equivalency Guide](#) for the academic year in which the course was taken. Courses approved for transfer exclusively toward the Bachelor of Applied Science are ineligible for inclusion in the AGEC.
- A single course can simultaneously count toward one or more Awareness Areas and other AGEC requirements. For example, an approved course in world geography may be used to satisfy [SB] and [G] requirements. While multiple requirements can be met with a single course, the credits for that course are only counted one time toward the required minimum total for the AGEC. Except as detailed below for the AGEC-S, a single course cannot be used to satisfy more than one AGEC requirement, with the exception of Awareness Areas. While multiple requirements can be met with a single course, the credits are only counted one time toward the required minimum for the degree. Except as detailed below for the AGEC-S, a single course cannot be used to satisfy more than one AGEC core requirement other than Awareness Areas. For example, for AGEC-A and AGEC-B, a single course cannot be used to satisfy both [HU] and [SB], but it could be used to meet [HU] and [C], [G] and/or [H].
- Awareness Areas and MCCCDC’s Additional Requirements may also be shared with other AGEC Requirements. Optimizing credits in this way is often recommended because some programs and universities limit transferable credits at 64.

Transfer Credit from Institutions Outside of MCCCDC

- Credits transferred from outside of MCCCDC must be completed with a grade of “C” (2.0 on a 4.0 scale) or better. Transfer credit graded pass/fail or pass/no credit may be used to satisfy AGEC requirements if documentation collected by the community college indicates that this was the only grading option available and that the Pass grade (“P”) is equivalent to a “C” or better.
- The AGEC (Arizona General Education Curriculum) designations of courses completed at other Arizona public colleges or universities will be applied as listed on [AZTransfer’s Course Equivalency Guide](#) (CEG) for the semester(s) in which the course(s) were completed. If a transcript evaluation determines there is no MCCCDC direct equivalency to a course from another Arizona public college or university, applicability to AGEC and/or associate degree requirements

will be based on the source institution's AGEC designation for the semester in which the course was completed.

- Courses from private, out-of-state, and/or online institutions (i.e., outside of the Arizona Transfer System composed of Arizona's public community colleges, tribal colleges and universities) will be applied toward AGEC and/or associate degree requirements based on the courses' evaluated MCCCDCD equivalence. If courses are not directly equivalent, the credit may be articulated as a departmental elective, and if deemed appropriate, may have a general education designation applied to the course.
- Credit awarded at a Maricopa Community College through prior learning assessment in a non-traditional setting is transferable to other colleges in the MCCCDCD district but is not necessarily transferable to other colleges and universities outside of the MCCCDCD system. No more than 20 such assessed semester credit hours may be applied toward AGEC.

Completion and Transfer

- Completion of the AGEC with a minimum grade point average of 2.0 for Arizona residents and 2.50 for non-residents (on a 4.0 scale) meets Arizona public university general admission requirements. It does not ensure admission to specific university majors or programs with selective admission processes and/or limited enrollment.
- Students planning to transfer to another college or university are urged to refer to university requirements and academic advisors from both institutions to be certain that all their selected coursework is applicable to the requirements of their intended transfer degree. For some majors, the statewide Common Course matrix, AZTransfer Pathway Guides and/or University Transfer Guides posted on the [AZTransfer website](#) can also provide some guidance. For appropriate course selection, students should consult with an academic advisor.

AGEC Requirements

- Descriptions and definitions of the requirements for each of the three AGECs follow. The following website identifies the courses that apply to the different requirements within each AGEC for a given academic year:
- [AGEC matrix](#). AGEC designations are subject to change. It is important to verify a course's AGEC value in the semester it is taken. For convenience, this information is provided for the current and upcoming semester in the "Find a Class" tool on [maricopa.edu](#) and on each MCCCDCD college's website as well as in the AGEC matrix provided by [AZTransfer](#).
- Note that for students pursuing an associate degree with a specific emphasis (for example: Associate in Arts, Emphasis in History; Associate in Arts, Fine Arts, Emphasis in Theatre; Associate in Science, Emphasis in Physics), the AGEC course requirements are usually more prescriptive. Students pursuing a major-specific pathway should consult the Program (Degree) Search at [curriculum.maricopa.edu](#) (click on Current Programs) for specific degree and AGEC requirements. Consultation with an academic advisor about course selection is always recommended.

AGEC-A

Credits
35 (min.)*

Arizona General Education Curriculum--Arts (AGEC-A)

The AGECE-A requires a minimum of 35 credits (32 if [FYC] is met by single transfer course)*; courses applied to meet AGECE-A requirements vary by emphasis.

Refer to the program (Degree) Search at curriculum.maricopa.edu (click on Current Programs) for specific course requirements. The Required Courses and/or Restricted Electives for some areas of Emphasis may also have AGECE designations including one or more of the Awareness Areas ([C], [G] and/or [H]). A single course may meet more than one requirement but its credits are only counted once toward the total for the degree. AGECE designations are subject to change. See [AGECE matrix](#) for each course's value(s) in the semester it is taken.

- | | |
|--|---------------------------|
| A. First-Year Composition [FYC]
ENG101 OR ENG107 AND
ENG102 OR ENG108 | 6*
(3)*
(3)* |
| B. Literacy and Critical Inquiry [L] | 3 |
| C. Mathematical Applications [MA]
Requires a course in college mathematics (MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or pre-calculus (MAT187) or higher [MA]-approved general education course | 3-6 |
| D. Computer/Statistics/Quantitative Applications [CS] | 3 |
| E. Humanities, Arts and Design [HU]
Students are encouraged to choose course work from more than one discipline. | 6 |
| F. Social-Behavioral Sciences [SB]
Students are encouraged to choose course work from more than one discipline. | 6 |
| G. Natural Sciences [SQ/SG]
The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credits. At least four (4) credits must be designated as SQ-Science Quantitative. Eight (8) credits of SG-Science General will not satisfy this requirement. | 8 |
| H. Awareness Areas
The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGECE requirements. (See AGECE matrix for | 0-6 |

current course values). Credits for such shared courses may only be counted once.

1. Cultural Diversity in the United States [C] (0-3)
2. Global Awareness [G] OR Historical Awareness [H] (0-3)

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

AGEC-B

Credits
35 (min.)*

Arizona General Education Curriculum - Business (AGEC-B)

The AGECE-B requires a minimum of 35 credits (32 if [FYC] is met by single transfer course)*.

The Required Courses and/or Restricted Electives for corresponding Associate's degree may also have AGECE designations including one or more of the Awareness Areas ([C], [G] and/or [H]). A single course may meet more than one requirement but its credits are only counted once toward the total for the degree.

A. First-Year Composition [FYC] ENG101 OR ENG107 AND ENG102 OR ENG108	6* (3)* (3)*
B. Literacy and Critical Inquiry [L]	3
C. Mathematical Applications [MA] MAT212 Brief Calculus OR MAT213 Brief Calculus OR Higher [MA] designated course	3-5 (3) (4) (3-5)
D. Computer/Statistics/Quantitative Applications [CS] CIS105 Survey of Computer Information Systems	3
E. Humanities, Arts and Design [HU] Students are encouraged to choose course work from more than one discipline.	6
F. Social-Behavioral Sciences [SB] ECN211 Macroeconomics AND ECN212 Microeconomics.	6
G. Natural Sciences [SQ/SG] The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four (4) credits. Credits for lecture and lab components may be combined or each may carry separate credit. At least four (4) credits must be designated as SQ-Science Quantitative. Eight (8) credits of SG-Science General will not satisfy this requirement.	8
H. Awareness Areas The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGECE requirements. (See AGECE matrix for current course values). Credits for such shared courses may only be counted once.	0-6
3. Cultural Diversity in the United States [C]	(0-3)

4. Global Awareness [G] OR Historical Awareness [H]

(0-3)

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

AGEC-S

Credits
36 (min.)*

Arizona General Education Curriculum--Science (AGEC-S)

The AGECS requires a minimum of 36 credits (33 if FYC is met by single transfer course)*; courses applied to meet AGECS requirements vary by emphasis.

Refer to the program (Degree) Search at curriculum.maricopa.edu (click on Current Programs) for specific course requirements. The Required Courses and/or Restricted Electives for some areas of Emphasis may also have AGECS designations including one or more of the Awareness Areas ([C], [G] and/or [H]). A single course may meet more than one requirement but its credits are only counted once toward the total for the degree.

Some courses have been approved for more than one AGECS designation (see [AGEC matrix](#)). For the AGECS only, a single course with an [L] designation may be used to satisfy a second AGECS requirement (as well as any approved Awareness Areas). Only courses with [L] designations may be shared in this way.

- | | |
|---|---------------------------|
| A. First-Year Composition [FYC]
ENG101 OR ENG107 AND
ENG102 OR ENG108 | 6*
(3)*
(3)* |
| B. Literacy and Critical Inquiry [L]
Students pursuing AGECS and/or AS degree are strongly encouraged to choose an [L] course that also has [HU] or [SB] designation or to use CRE101 or COM225 from the Maricopa Additional Requirements Area to satisfy the [L] requirement. The [L] course selected may also have been approved to satisfy one or more Awareness Areas ([C], [G], [H]). Thus, a single [L] course could potentially meet another AGECS requirement as well as one or more Awareness areas | 0-3** |
| C. Mathematical Applications [MA]
Requires the first semester of calculus courses designed for scientists and engineers (MAT220 or MAT221) or any other [MA] designated course for which Calculus I is a prerequisite. | 4-5 |
| D. Humanities, Arts and Design [HU]
A single course approved for both [L] and [HU] designations may be used to satisfy both requirements. This policy is unique to AGECS and to [L] courses. A course approved for both [HU] and [SB] can be counted for one or the other designation, not both. AGECS designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken. | 6 |
| E. Social-Behavioral Sciences [SB] | 6 |

A single course approved for both [L] and [SB] designations may be used to satisfy both requirements. This policy is unique to AGEC-S and to [L] courses. A course approved for both [SB] and [HU] can be counted for one or the other designation, not both. AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.

F. Natural Sciences [SQ/SG]

8-10

Students must complete eight (8) credits of General Chemistry, University Physics, General Biology for Majors, or Physical and Historical Geology. Consult specific requirements of university transfer major or associate degree with corresponding emphasis. for guidance.

[(CHM150 or CHM151) & CHM151LL] or

CHM150AA or CHM151AA General Chemistry I

AND

[CHM152 & CHM152LL] or CHM152AA General Chemistry II

OR

PHY115 or PHY121 University Physics I

AND

PHY116 or PHY131 University Physics II

OR

BIO181 or BIO181XT General Biology (Majors) I

AND

BIO182 or BIO182XT General Biology (Majors) II

OR

GLG101IN Introduction to Geology I - Physical or

GLG101 Introduction to Geology I - Physical Lecture and

GLG103 Introduction to Geology I – Physical Lab

AND

GLG102IN Introduction to Geology II – Historical or

GLG102 Introduction to Geology II - Historical Lecture and

GLG104 Introduction to Geology II – Historical Lab.

G. Subject Options - Math/Science

6-10

Students should refer to transfer resources, including academic advisement, transfer guides and/or requirements for associate degree with corresponding area of emphasis, to select six (6)-ten (10) additional math and/or science credits that meet requirements for selected major.

This Math/Science requirement can be met by selecting Mathematics course(s) [MAT] that require Calculus I as a prerequisite and/or Computer Science course(s) [CSC] and/or additional Science courses from the following disciplines: Astronomy, Biology, Botany, Chemistry, Engineering, Environmental Science, Geology, Physical Geography, Physics, Zoology (MCCCD prefixes AST, BIO CHM, ECE, EEE, ENV, GLG, GPH, and/or PHY)

H. Awareness Areas

0-6

The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See [AGEC matrix](#) for current course values). Credits for such shared courses may only be counted once.

1. Cultural Diversity in the United States [C] (0-3)
2. Global Awareness [G] OR Historical Awareness [H] (0-3)

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

**0 only if shared with HU or SB

Description of AGEC Designations

First-Year Composition (FYC)

First-Year Composition courses emphasize skills necessary for college-level expository writing, including correct grammar and punctuation, logical organization of ideas, and identification of supporting documentation.

Literacy and Critical Inquiry [L]

In the [L] course, students typically at the sophomore level, express their findings in writing or speech. This course includes a series of graded written or spoken formal assignments.

Literacy is defined broadly as communicative competence in written and oral discourse; critical inquiry is defined as the gathering, interpreting, and evaluating of evidence. Building on the proficiency attained in traditional First-Year Composition courses, the Literacy and Critical Inquiry [L] requirement sustains and extends students' ability to thoughtfully use and critically analyze written and/or spoken language.

Mathematical Applications [MA]

The Mathematical Studies requirement is intended to ensure that students have requisite skill in mathematics appropriate for their discipline and can apply mathematical analysis in their chosen fields.

Computer/Statistics/Quantitative Applications [CS]

AGEC-A and AGEC-B require a course that emphasizes the use of statistics, other mathematical methods, computer programming languages and/or software in the interpretation of data and in describing and analyzing quantitative relationships.

Humanities, Arts and Design [HU]

The study of the humanities and the disciplines of art and design deepen awareness of the complexities of the human condition and its diverse histories and cultures. Courses in the humanities are devoted to the production of human thought and imagination, particularly in philosophical, historical, religious and artistic traditions. Courses with an emphasis in fine arts and design are devoted to the study of aesthetic experiences and the processes of artistic creation. They may also feature a design emphasis in which material culture is studied as a product of human thought and imagination.

Social-Behavioral Sciences [SB]

Social-Behavioral Sciences provide scientific methods of inquiry and empirical knowledge about human behavior, both within society and within individuals. This area of emphasis may include study of such

disciplines as anthropology, economics, history, political science, psychology, or sociology. The courses in this area address the challenge of understanding the diverse natures of individuals and cultural groups who live together in a complex and evolving world.

Natural Sciences [SQ/SG] In addition to an understanding of basic scientific principles and concepts, courses in the Natural Sciences are designed to help students appreciate, from firsthand laboratory and/or field research experience, the nature of science as a process that embraces curiosity, inquiry, testing, and communication to better understand natural phenomena. At least one of the two natural science courses must include an introduction to the fundamental behavior of matter and energy in physical or biological systems.

AWARENESS AREAS

Students must satisfy two Awareness areas: Cultural Diversity in the U.S. and either Global Awareness or Historical Awareness. Courses can satisfy other AGEC requirements and one or two Awareness areas simultaneously. Therefore, no additional semester credits are required to satisfy the two Awareness areas provided courses selected are approved for those designations (see [AGEC matrix](#)).

Cultural Diversity in the United States [C]

The contemporary “culture” of the United States involves the complex interplay of many different cultures that exist side by side in various states of harmony and conflict. U.S. history involves the experiences of European immigrants and their descendants, American Indians, Hispanic Americans, African Americans and Asian Americans--all of whom played significant roles in the development of contemporary culture and together shaped the future of the United States. At the same time, the recognition that gender, class, and religious differences cut across all distinctions of race and ethnicity offers an even richer variety of perspectives from which to view one. Awareness of cultural diversity and its multiple sources can illuminate the collective past, present, and future and can help to foster greater mutual understanding and respect.

The objective of the Cultural Diversity area requirement is to promote awareness of and appreciation for cultural diversity within the contemporary United States. This is accomplished through the study of the cultural, social, or scientific contributions of women and minority groups, examination of their experiences in the United States, or exploration of successful or unsuccessful interactions between and among cultural groups.

Global Awareness [G]

Human organizations and relationships have evolved from being family and village centered to the modern global interdependence that is apparent in many disciplines--for example, contemporary art, business, engineering, music, and the natural and social sciences. Many serious local and national problems are world issues that require solutions which exhibit mutuality and reciprocity. These problems occur in a wide variety of activities, such as food supply, ecology, health care delivery, language planning, information exchange, economic and social developments, law, technology transfer, and even philosophy and the arts. The Global Awareness Area recognizes the need for an understanding of the values, elements, and social processes of cultures other than the culture of the United States. The Global Awareness Area includes courses that recognize the nature of other contemporary cultures and the relationship of the American cultural system to generic human goals and welfare.

Courses that satisfy the global awareness option in the requirements are of one or more of the following types:

1. Area studies that are concerned with an examination of culture-specific elements of a region of the world
2. The study of a non-English language
3. Studies of international relationships, particularly those in which cultural change is facilitated by such factors as social and economic development, education, and the transfer of technology
4. Studies of cultural interrelationships of global scope such as the global interdependence produced by problems of world ecology.

Historical Awareness [H]

The Historical Awareness Area option in the requirements aims to develop a knowledge of the past that can be useful in shaping the present and future. Because historical forces and traditions have created modern life and lie just beneath its surface, historical awareness is an aid in the analysis of present-day problems. Also, because the historical past is a source of social and national identity, historical study can produce intercultural understanding by tracing cultural differences to their origins. Even the remote past may have instructive analogies for the present.

The Historical Awareness Area consists of courses that are historical in method and content. In this area, the term “history” designates a sequence of past events or a narrative whose intent or effect is to represent such a sequence.

The requirement presumes that these are human events and that history includes all that has been felt, thought, imagined, said, and done by human beings. History is present in the languages, art, music, literature, philosophy, religion, natural sciences, as well as in the social science traditionally called history.

Associate in Applied Science (AAS) Degree

Maricopa County Community College District (MCCCD)

2023-2024 Associate In Applied Science (AAS) Degree and General Education Requirements

Description

The Associate in Applied Science (AAS) degree requires at least 60 credits in its program of study.

The exact number of credits for a specific degree is identified as part of the presentation of its requirements at curriculum.maricopa.edu click on Current Programs or search in the offering college(s)' catalog.

Purpose of the Degree

The Maricopa County Community College District Associate in Applied Science (AAS) degree is recommended for students who wish to gain a depth of technical expertise in a particular workforce-related area of study. The AAS degree options vary at the different MCCCD colleges and can be searched [alphabetically](#) (click on Current Programs) or by [field of interest](#). Requirements for each degree can be found on the linked web pages and in the corresponding college(s)'s catalog.

Academic Policies that Govern the AAS degree:

- Degree requires 60 or more credits numbered 100 or above and includes credits or the equivalent in the General Education Core areas and credits in the Distribution areas. AAS degree requirements follow with the use of a diagonal character (/) between course numbers to signify options. An asterisk (*) following the course number defines requirements with an effective begin term of spring;
- All courses must be completed with a grade of C or higher; any additional requirements such as grades of B or higher or minimum grade point average requirements are listed on individual degrees and certificates
- The graduation policies within the general catalog must be satisfied (Administrative Regulation 2.3.9). First Year Experience is required (FYE 101 or FYE 103).
- Some courses also have equivalent combinations of modular variants; all options are listed and completion of either the course or its modular equivalents will satisfy the AAS requirements.
- Requires completion of General Education courses as indicated in the General Education Requirements for the Associate in Applied Science degree from the Maricopa County Community College District, or completion of a curriculum as stated in the catalog
- Any course that is cross referenced with that of another discipline/subject (for example EDU/ENH291, Children's Literature) covers identical contents. A course under either subject (for example, EDU291 or ENH291) will count only once toward degree requirements.

AAS GENERAL EDUCATION CORE

(12-15 credits)*

Demonstrate college-level skills in the following areas:

First-Year Composition (6 credits)*

ENG English [101/107] & [102/108/111]

Oral Communication (3 credits)

COM Communication 100/100AA & 100AB & 100AC/110/110AA & 110AB & 110AC/225/230

Critical Reading (3 credits)

CRE Critical Reading 101 or Equivalent as indicated by assessment

Mathematics (3 credits)

MAT Mathematics
112/114/115/120/121/122/126/140/141/142/145/146/150/MAT150&182/151/MAT151&182/152/152&182/155/155&182/156/156&182/172/187/206/212/213/217/218/220/221/225/227/230/231/240/241/256/257/276/277/
equivalent course/Satisfactory completion of a higher level mathematics course

AAS GENERAL EDUCATION

DISTRIBUTION AREAS

(9-10 credits)

Humanities, Arts and Design (2-3 credits)

AHH Arabic Humanities 245
AIS American Indian Studies 213
AJS Administration of Justice Studies 123
ARH Art Humanities Any ARH Course(s)
ART Art 131
ASB Anthropology 211/214/220/222/223/253
CCS Chicana and Chicano Studies 101
COM Communication 241
CON Construction 101 (formerly CNS 101)
DAH Dance Humanities 100/201/250/255
EDU Education 230/291/292/294
ENG English 200/213/218
ENH English Humanities Any ENH Course(s)
FMT Film, Media, and Theatre 107
FRE French 265
GST Game Studies 202
HCR Health Care Related 210
HIS History 101/102/103/108/110/111/113/114/203/212/251/252
HON Honors 190
HUM Humanities Any HUM course(s) (except 120, 225)
INT Interior Design 115/120

LAT Latin 201/202
MHL Music:History/Literature
140/143/145/146/153/155/194/ 204/241/242/295
PHI Philosophy Any PHI Course(s)
REL Religious Studies Any REL Course(s)
SLC Studies in Language & Culture 201/202
SPA Spanish 241/242/265/266
SPH Spanish Humanities 241, 245
SSH Sustainability/Social Sciences and Humanities 111
STO Storytelling 292/294
SWU Social Work 183
TEC Textiles and Clothing 105, 125
THE Theatre 111/220
THF Theatre and Film 205/206/210
THP Theatre Performance/Production 217, 241
WST Women's Studies 209/284/285/290

Social-Behavioral Sciences (3 credits)

AFR African American Studies 202/203/204
AIS American Indian Studies 101/140/141/160
AJS Administration of Justice Studies 101/200/225/258/270
ASB Anthropology 100/102/202/211/222/223/226/230/235/252
ASM Anthropology 104/275
BHS Behavioral Health Services Technology 150, 155, 175, 210
CAP Counseling and Applied Psychology 120
CCS Chicana and Chicano Studies 202
CFS Child/Family Studies 112/157/159/205/235/259
COM Communications 100/100AA & 100AB & 100AC/ 110/110AA & 110AB & 110AC/163/230/250/263
CPD Counseling and Personal Development 180
ECH Early Childhood Education 176
ECN Economics Any ECN course(s)
EDU Education 221/222
EED Early Education 200/205/222
EMT Emergency Medical Technology 258
ENG English 213

FOR Forensic Science 275
 FSC Fire Science 258
 GCU Cultural Geography 102/113/121/122/
 141/221
 HES Health Science 100
 HIS History Any HIS course(s) (except
 111,170, 251, 252)
 HON Honors 201
 HUM Humanities 235
 IBS International Business 109
 IFS Information Studies 201, 210, 213
 MCO Mass Communications 120
 MGT Management 229/230
 PAD Public Administration 200
 POS Political Science Any POS course(s)
 PSY Psychology 101/123/132/156/157/
 218/225/235/240/241/243/250/260/262/
 266/277/280/292
 REC Recreation 120
 SBU Society and Business 200
 SLC Studies in Language & Culture 201
 SOC Sociology Any SOC course(s) (except
 143, 245, 253, 265)
 SSH Sustainability/Social Sciences and
 Humanities 111
 SUS Sustainability/Natural Sciences 110
 SWU Social Work 171/182/250/258/295
 TEC Textiles and Clothing 105
 WED Wellness Education 110
 WST Women's Studies 100/161
 YAQ Yaqui Indian History and Culture 100

Natural Sciences (4 credits)

The lecture course(s) selected for Natural Sciences must include or be accompanied by

the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection.

AGS Agricultural Science 164, 260
 ASB Anthropology (Soc/Behv. Science) 231
 ASM Anthropology (Science/Math) 104/265/275
 AST Astronomy 101/106/111/112
 BIO Biology 100/101/102/105/107/108/
 109/111/145/ 149AN/156/156XT/160/181/
 181XT/182/182XT/201/201XT/202/205/241
 CHM Chemistry 107&107LL/130&130LL/
 130AA/ 150AA/150&151LL/151AA/151&
 151LL/152AA/152&152LL/154&154LL/
 230AA/230&230LL
 CON Construction 106 (formerly CNS106)
 ENV Environmental Sciences 101
 FON Food and Nutrition 241&241LL
 FOR Forensic Science 105/106/275
 GLG Geology Any combination of GLG course(s) meeting the minimums described above
 GPH Physical Geography 111&112/113/
 211/212&214/ 213&215
 PHS Physical Science 110/115/120
 PHY Physics 101/101AA/111/111AA/
 112/115/116/ 121/131
 PSY Psychology 275/290AB/290AC

*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Associate in Arts (AA) Degree

**Maricopa County Community College District (MCCCD)
 2023-2024 Associate in Arts (AA) Degree**

Description

The Maricopa County Community College District Associate in Arts (AA) degree requires a minimum of 60 semester credits for the program of study; minimum total credits vary by specific emphasis (for example, Associate in Arts, Emphasis in Psychology). Refer to curriculum.maricopa.edu (click on

Current Programs) to search for the corresponding area of emphasis for credit minimums. A minimum grade point average of 2.0 (4.0 scale) and grades of “C” or better are required in all courses to earn the degree. The AA degree is governed by the MCCCDC General Academic Policies for Degrees Designed for University Transfer.

The Associate in Arts degree includes the following components:

- I. Program Prerequisites (as specified by emphasis area)
- II. Required Courses
- III. Restricted Electives (as specified by area of emphasis)
- IV. Arizona General Education Curriculum for Arts (AGEC-A)
- V. MCCCDC Additional Requirements (Oral Communication and Critical Reading)
- VI. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Associate in Arts (AA) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Liberal Arts or programs of study other than business or science. Generally, the degree will transfer as a block without loss of credit to Arizona’s public universities and other institutions with district-wide articulation agreements.

In most cases, courses used to satisfy the MCCCDC Associate in Arts (AA) will apply to general university graduation requirements of the majors that align with the AA degree; however, students need to be aware of any specific requirements of their intended major at the university to be sure they select courses that will meet them. Information regarding the articulation of the AA with majors at the Arizona public universities can be accessed via the following website: aztransfer.com/tools

Degree Requirements

The requirements for the Associate in Arts (AA) follow. The AA degree requires at least 60 credits; however, minimum credits for the AA vary for a specific area of emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis and credit minimums; review course sequence at maricopa.edu/degrees-certificates#programs. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: [AGEC-A](#) and the [AGEC matrix](#).

Requirements

Credits

I. Program Prerequisites

Number varies

Program prerequisites for the AA degree vary by specific emphasis, and are neither required for all emphases nor for the AA degree without a specific emphasis. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis and credit minimums.

II. Required Courses

Number varies

Students must complete FYE 101 (1) or FYE 103 (3) and select the required courses for the specific AA degree emphasis. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums.

III. Restricted Electives

Number varies

Restricted electives for the AA degree vary by specific emphasis and are not required for the general AA degree without a specific emphasis. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums.

IV. Arizona General Education Curriculum--Arts (AGEC-A) Up to 44*

The AGECA requires a minimum of 35 credits (32 if FYC is met by single transfer course)*. Courses applied to meet AGECA requirements vary by emphasis. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis and credit minimums.

Any prerequisite/required/restricted elective courses that also have one or more AGECA designation(s) may be applied toward both requirements. Credits for such shared courses are only counted once toward the total credits for the degree.

AGECA designations are subject to change. See [AGECA matrix](#) for each course's value(s) in the semester it is taken. Some of the courses have been approved for more than one designation. Notes below will show how such courses may be used to meet multiple degree requirements.

- | | |
|--|---|
| A. First-Year Composition [FYC]
ENG101 OR ENG107 AND
ENG102 OR ENG108 | 6*
(3)*
(3)* |
| B. Literacy and Critical Inquiry [L] | 3 |
| C. Mathematical Applications [MA]
Requires a course in college mathematics (MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or precalculus(MAT187) or higher [MA]-approved general education course. | 3-6 |
| D. Computer/Statistics/Quantitative Applications [CS] | 3 |
| E. Humanities, Arts and Design [HU]
Students are encouraged to choose course work from more than one discipline. | 6 |
| F. Social-Behavioral Sciences [SB]
Students are encouraged to choose course work from more than one discipline. | 6 |
| G. Natural Sciences [SQ/SG]
The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four (4) credits each. Credits for lecture and lab components may be combined or each may carry separate credits. At least four (4) credits must be designated as SQ-Science Quantitative. Eight (8) credits of SG-Science General will not satisfy this requirement. | 8 |
| H. Awareness Areas | 0-6 |

The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See [AGEC matrix](#) for current course values). Credits for such shared courses may only be counted once

1. Cultural Diversity in the United States [C] (0-3)

2. Global Awareness [G] OR Historical Awareness [H] (0-3)

May be met by [HU] and/or [SB] course depending on specific course(s) selected.

(AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.)

V. MCCC Additional Requirements 0-6

As noted below, courses in this area may also be applied toward AGEC-A requirements.

A. Oral Communication (0-3)

COM100 [SB] Introduction to Human Communication OR

COM110 [SB] Interpersonal Communication OR

COM225 [L] Public Speaking OR

COM230 [SB] Small Group Communication (3 credits)

B. Critical Reading (0-3)

CRE101 [L] Critical Reading OR equivalent as indicated by assessment

VI. General Electives 0-28

Select courses 100-level or higher if needed to complete a minimum of 60 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines. MCCC has established recommended courses and sequencing to align with various "Emphasis Areas" in one of nine different "Fields of Interest." See maricopa.edu/degrees-certificates for links to these transfer pathways.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer.com/tools, maricopa.edu/degrees-certificates/transfer/pathways-partners, as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor. .

Total 60-64**

*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

**64 semester credits is the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer information.

Associate in Arts, Elementary Education (AA-EE) Degree - 8101

Maricopa County Community College District (MCCCD) 2023-2024 Associate in Arts, Elementary Education (AA-EE) Degree

Description

The Maricopa County Community College District Associate in Arts, Elementary Education (AAEE) degree requires a minimum of 60 semester credits for the program of study. A minimum grade point average of 2.0 (4.0 scale) and grades of “C” or better in all courses are required to earn the degree. The AAEE degree is governed by the MCCCD General Academic Policies for Transfer Degrees. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding 8101 AAEE. A minimum grade point average of 2.0 (4.0 scale) and grades of “C” or better are required in all courses to earn the degree. The AA degree is governed by the MCCCD General Academic Policies for Degrees Designed for University Transfer.

The Associate in Arts, Elementary Education degree includes the following components:

- I. Required Courses
- II. Restricted Electives
- III. Arizona General Education Curriculum for Arts (AGEC-A)
- IV. MCCCD Additional Requirements (Oral Communication and Critical Reading)

Purpose of the Degree

The Associate in Arts, Elementary Education (AAEE) degree is designed for the student who plans to transfer to an Elementary Education, Early Childhood, Multicultural/Multilingual, or Special Education program at an Arizona public higher education institution and/or who plans to become a classroom instructional aide. Generally, the degree transfers as a block without loss of credit to Arizona's public universities, and in most cases, its required courses apply to graduation requirements for these Education majors. The AAEE is also embedded within the Bachelor of Arts, Elementary Education and Special Education (BAEE/SPED) offered by the Maricopa Community Colleges.

Degree Requirements

The requirements for the Associate in Arts in Elementary Education follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: [AGEC](#) and the [AGEC matrix](#) report. Courses available for both Areas during a current or upcoming semester can also be found using the “[Find a Class](#)” tool on maricopa.edu and on each MCCCD college's website. Course sequence is available at maricopa.edu/degrees-certificates#programs.

Requirements

Credits

Requirements	Credits
I. Required Courses	14-20
EDU221 Introduction to Education	(3)
EDU222 Introduction to the Exceptional Learner	(3)
EDU230 Cultural Diversity in Education	(3)
FYE101 or FYE103 Introduction/Exploration To College, Career and Personal Success	(1-3)
MAT256 Investigating Quantity: Number, Operations, and Numeration Systems	(4)
MAT257 Investigating Geometry, Probability, and Statistics	(0-4)

II. Restricted Electives

8

A total of eight (8) semester credits is required to satisfy the Arizona Professional Teacher Standards: three (3) credits in an additional Education (EDU) course and five (5) credits in Content Area Electives.

Courses must transfer to all public Arizona universities as elective credit, departmental elective, or equivalent to a university course as indicated in the [Arizona Course Equivalency Guide](#) in effect when the course is taken. Courses identified as non-transferable in the Arizona Course Equivalency Guide cannot be used to satisfy this requirement.

Select one (1) additional EDU course (other than EDU221, EDU222, EDU230 or EDU250) (3)
Recommended:

EDU110 Education in Film

EDU220 Introduction to Serving English Language Learners (ELL)

EDU236 Classroom Relationships

EDU/HUM/STO292 The Art of Storytelling

Choose any combination from the following list of courses and prefixes to total five (5) credits of additional coursework. Course(s) selected must be different from those used to fulfill a requirement of the AGEC-A and/or those used to fulfill Required Courses.

Content Area Electives: Select a total of five (5) credits from the following options (5)

ARH+++ Any ARH Art Humanities course(s)

ART+++ Any ART Art course(s)

BPC+++ Any BPC Business-Personal Computers course(s)

CFS/ECH176 Child Development

CFS205 Human Development

CIS+++ Any CIS Computer Information Systems course(s)

ECN+++ Any ECN Economics course(s)

EDU+++ Any EDU Education course(s) (except EDU221, EDU222, EDU230, and EDU250)

EED215 Early Learning: Health, Safety, Nutrition and Fitness OR

CFS123 Health and Nutrition in Early Childhood Settings AND

CFS125 Safety in Early Childhood Settings

ENG+++ Any ENG English course(s)

ENH+++ Any ENH English Humanities course(s)

GCU+++ Any GCU Cultural Geography course(s)

GPH+++ Any GPH Physical Geography course(s)

HIS+++ Any HIS History course(s)

MAT+++ Any MAT Mathematics course(s) 140 or higher (except MAT256 and MAT257)

MHL+++ Any MHL Music: History/Literature course(s)

MTC+++ Any MTC Music: Theory/Composition course(s)

POS+++ Any POS Political Science course(s)

THE+++ Any THE Theatre course(s)

THF+++ Any THF Theatre and Film course(s)

THP+++ Any THP Theatre Performance/Production course(s)
 Any Foreign Language course(s)
 Any Natural Science course(s)

III. Arizona General Education Curriculum--Arts (AGEC-A) 35-44*

The AGECA requires a minimum of 35 credits (32 if FYC is met by single transfer course)*;

AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken. Some of the courses have been approved for more than one designation.

Notes below will show how such courses may be used to meet multiple degree requirements.

- A. First-Year Composition [FYC] **6***
 ENG101 OR ENG107 AND (3)*
 ENG102 OR ENG108 (3)*

- B. Literacy and Critical Inquiry [L] - COM225 Public Speaking **3**

- C. Mathematical Applications [MA] **3-6**
 Requires a course in college mathematics (MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or precalculus (MAT187) or higher approved general education course in the Mathematical Applications [MA] area for which MAT15+ is a prerequisite.
 (Note that MAT182, MAT206, MAT256, MAT257 do NOT meet this requirement).

- D. Computer/Statistics/Quantitative Applications [CS] **3**
 BPC110 Computer Usage and Applications OR
 CIS105 Survey of Computer Information Systems OR
 EDU/EED115 Digital Literacy for Teaching and Learning in Education
 EDU/EED115 recommended.

- E. Humanities, Arts and Design [HU] **6**
 Note that some of these courses also have Awareness Areas designations and can be used to satisfy [G] and/or [H] requirement as well as [HU]. (AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.)
 - 1) Select one of the following ARH, DAH, MHL or THE courses: (3)
 ARH100 Introduction to Art OR
 ARH101 Prehistoric through Gothic Art OR
 ARH102 Renaissance through Contemporary Art OR
 DAH100 Introduction to Dance OR
 DAH201 World Dance Studies OR
 DAH250 Dance in Popular Culture OR
 MHL140 Survey of Music History OR
 MHL145 American Jazz and Popular Music OR
 MHL146 Survey of Broadway Musicals OR
 MHL153 Rock Music and Culture OR

THE111 Introduction to Theatre OR
THE220 Modern Drama

AND

- 2) Select one of the following EDU, ENH or HUM courses: (3)
- EDU/ENH291 Children's Literature (Recommended) OR
 - ENH110 Introduction to Literature OR
 - ENH241 American Literature Before 1860 OR
 - ENH242 American Literature After 1860 OR
 - HUM250 Ideas and Values in the Humanities: Early Civilizations to the Renaissance OR
 - HUM251 Ideas and Values in the Humanities: Renaissance to the Contemporary World

F. Social-Behavioral Sciences [SB] 6

Note that some of these courses also have Awareness Areas designations and can be used to satisfy [G] and/or [H] requirement as well as [SB]. (AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.)

- 1) Select one of the following US History/Government courses** (3)
- These courses satisfy the United States Constitution requirement for state teacher certification.
- GCU/POS113 United States and Arizona Social Studies OR
 - HIS103 United States History to 1865 OR
 - POS110 American National Government

AND

- 2) Select one of the following CFS, ECH, GCU, ECN, HIS or PSY courses (3)
- CFS205 Human Development OR
 - CFS/ECH176 Child Development OR
 - ECN211 Macroeconomic Principles OR
 - ECN212 Microeconomic Principles OR
 - GCU121 World Geography I: Eastern Hemisphere OR
 - GCU122 World Geography II: Western Hemisphere OR
 - HIS104 United States History 1865 to Present OR
 - PSY101 Introduction to Psychology

(CFS/ECH176 recommended)

G. Natural Sciences [SQ/SG] 8

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of four (4) credits each. At least four (4) credits must be designated as [SQ]. Eight (8) credits of [SG] will not satisfy this requirement.

- 1) Life Sciences: Select four (4) credits of SQ or SG in Biology (BIO) (4)

AND

- 2) Physical Sciences or Earth/Space Sciences: Select four (4) credits of SQ or SG from one of the following prefixes: (4)
- AGS, ASM, AST, CHM, GPH, GLG, PHS, or PHY

Note: Students are advised to check with the university they plan to attend as specific requirements for lab sciences may vary.

H. Awareness Areas	0-3
1) Cultural Diversity in the United States [C] Met by EDU222 and EDU230 in Required Courses.	(0)
2) Global Awareness [G] OR Historical Awareness [H] May be met by [HU] and/or [SB] course(s) depending on specific courses selected. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)	(0-3)
IV. MCCCCD Additional Requirements	0-3
A. Oral Communication Met by COM225 that is required to satisfy AGECE-A Literacy and Critical Inquiry [L]	(0)
B. Critical Reading CRE101 [L] Critical Reading OR equivalent as indicated by assessment	(0-3)

Total **60-64****

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

**State certification requirements include courses on the constitutions of the U.S. and Arizona. Taking GCU/POS113 for [SB] fulfills this requirement completely. Students who instead take HIS103 or POS110 for [SB] should consider taking POS221 as a Content Area Elective so they have completed study of both constitutions. POS220 meets state certification requirements for both constitutions but does not meet [SB].

***64 semester credits is the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer information.

Associate in Arts, Fine Arts (AAFA) Degree

Maricopa County Community College District (MCCCCD) 2023-2024 Associate in Arts, Fine Arts (AAFA) Degree

Description

The Maricopa County Community College District Associate in Arts, Fine Arts (AAFA) degree requires a minimum of 60 semester credits for the program of study; however, minimum total credits for the AAFA vary by specific emphasis. Students must select one of the emphasis areas: [Art](#), [Dance](#), [Music](#), [Musical Theatre](#), or [Theatre](#). If an emphasis area is not selected, this program is not eligible for Title IV Federal Financial Aid. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums for each emphasis. A minimum grade point average of 2.0 (4.0 scale) and grades of "C" or better are required in all courses

to earn the degree. The AAFA degree is governed by the MCCC CD General Academic Policies for associate degrees designed for university transfer.

The Associate in Arts, Fine Arts degree includes the following components:

- I. Program Prerequisites (as specified by emphasis area)
- II. Required Courses (as specified by area of emphasis)
- III. Restricted Electives (as specified by area of emphasis)
- IV. Arizona General Education Curriculum for Arts (AGEC-A)
- V. MCCC CD Additional Requirements (Oral Communication and Critical Reading)
- VI. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Associate in Arts, Fine Arts (AAFA) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Fine Arts. The degree is designed to prepare students to meet selective admission criteria for programs such as the Bachelor of Fine Arts; program admission may have an additional emphasis-specific portfolio or performance requirements.

In most cases, courses used to satisfy the MCCC CD Associate in Arts, Fine Arts (AAFA) will apply to general university graduation requirements of the majors that align with AAFA degree; however, students need to pay attention to any specific requirements of their intended focus at the university to be sure they select courses that will meet them. Information regarding the articulation of the AAFA degree with majors at the Arizona public universities can be accessed via the following website:

aztransfer.com/tools

Degree Requirements

The requirements for the Associate in Arts, Fine Arts (AAFA) follow. The Associate in Arts, Fine Arts degree requires at least 60 credits; however, minimum total credits for the AAFA vary by specific emphasis ([Art](#), [Dance](#), [Music](#), [Musical Theatre](#), or [Theatre](#)). Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums; review course sequence at maricopa.edu/degrees-certificates. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: [AGEC-A](#) and the [AGEC matrix](#). Courses available for both Areas during a current or upcoming semester can also be found using the “[Find a Class](#)” tool on maricopa.edu and on each MCCC CD college’s website.

Requirements

Credits

I. Required Courses

Number varies

Students must complete FYE101 or FYE103 and the required (major-specific) courses listed in the Associate in Arts Fine Arts degree Required Courses area for the specific emphasis ([Art](#), [Dance](#), [Music](#), [Musical Theatre](#), or [Theatre](#)). Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums for each emphasis.

II. Restricted Electives

Number varies

Restricted electives for the Associate in Arts, Fine Arts degree vary by specific emphasis: ([Art](#), [Dance](#), [Music](#), [Musical Theatre](#), or [Theatre](#)). Refer to curriculum.maricopa.edu (click on Current Programs) to search for the

corresponding area of emphasis for specific courses required and credit minimums for each emphasis.

III. Arizona General Education Curriculum--Arts (AGEC-A) up to 44

The AGECA requires a minimum of 35 credits (32 if FYC is met by single transfer course)*. However, depending on courses selected, it may take as many as 44 credits to satisfy all the General Education criteria. Any required/restricted elective courses that also have one or more AGECA designation(s) may be applied toward both requirements. Credits for such shared courses are only counted once toward the total credits for the degree.

AGECA designations are subject to change. See [AGECA matrix](#) for each course's value(s) in the semester it is taken. Some of the courses may have been approved for more than one designation. Notes below will show how such courses may be used to meet multiple degree requirements.

- | | |
|---|---------------------------|
| A. First-Year Composition [FYC]
ENG101 OR ENG107 AND
ENG102 OR ENG108 | 6*
(3)*
(3)* |
| B. Literacy and Critical Inquiry [L] | 3 |
| C. Mathematical Applications [MA]
Requires a course in college mathematics (MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or higher [MA]-approved general education course | 3-6 |
| D. Computer/Statistics/Quantitative Applications [CS] | 3 |
| E. Humanities, Arts and Design [HU] | 6 |
| F. Social-Behavioral Sciences [SB]
Students are encouraged to choose course work from more than one discipline. | 6 |
| G. Natural Sciences [SQ/SG]
The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement. | 8 |
| H. Awareness Areas
The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGECA requirements. (See AGECA matrix for current course values). Credits for such shared courses may only be counted once | 0-6 |
| 1) Cultural Diversity in the United States [C] | (0-3) |
| 2) Global Awareness [G] OR Historical Awareness [H] | (0-3) |

May be met by [HU] and/or [SB] course(s) depending on specific courses selected. (AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.)

IV. MCCC Additional Requirements **0-6**

As noted below, courses in this area may also be applied toward AGEC-A requirements.

A. Oral Communication 0-3

Refer to emphasis area ([Art](#), [Dance](#), [Music](#), [Musical Theatre](#), or [Theatre](#)) for specific COM course to select from the following list:

COM100 [SB] Introduction to Human Communication OR

COM110 [SB] Interpersonal Communication OR

COM225 [L] Public Speaking OR

COM230 [SB] Small Group Communication (3 credits) OR

COM100AA & COM100AB & COM100AC [SB] (3 credits) OR

COM110AA & COM110AB & COM110AC [SB] (3 credits)

B. Critical Reading 0-3

CRE101 [L] Critical Reading OR equivalent as indicated by assessment

V. General Electives **0-25**

Select courses 100-level or higher if needed to complete a minimum of 60 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines. MCCC has established recommended courses and sequencing to align with the Fine Arts Emphasis Areas. See maricopa.edu/degrees-certificates for links to these transfer pathways.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer.com/tools, curriculum.maricopa.edu, as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

****64 semester credits is the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer information.**

Associate in Business, General Requirements (ABUS-GR)

Maricopa County Community College District (MCCCD)

2023-2024 Associate in Business, General Requirements (ABUS-GR) Degree

Description

The Maricopa County Community College District Associate in Business General Requirements (ABUS-GR) degree requires a minimum of 62 semester credits for the program of study. A minimum grade point average of 2.0 (4.0 scale) and grades of C or better are required in all courses to earn the degree. The Associate in Business-General Requirements degree is governed by the MCCCD General Academic Policies for Transfer Degrees.

This degree provides the first two years of a four-year curriculum for students who wish to transfer to a university and pursue a bachelor's degree in business. For a comprehensive list of bachelor's degrees at Arizona's public universities, refer to the [AZTransfer Business Matrix](#). With a bachelor's degree, students may pursue a number of careers, including but not limited to accountancy, business administration, business data analytics, economics, entrepreneurship, finance, marketing, management, retail management, and supply chain management.

The Associate in Business-General Requirements degree includes the following components:

- I. Required Courses
- II. Restricted Electives
- III. Arizona General Education Curriculum for Business (AGEC-B)
- IV. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Associate in Business General Requirements (ABUS-GR) degree is designed for students who plan to transfer to four-year colleges and universities. In general, the components of this degree meet requirements for the various business majors (except Computer Information Systems) at Arizona's public universities. Computer Information Systems majors should follow the Associate in Business Special Requirements (ABUS-SR) pathway instead. Generally, the ABUS-GR degree transfers as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements. It does not, however, guarantee acceptance into particular university majors/programs with a limited number of students. Students should consult with their transfer institution for any specific admission requirements (e.g., GPA, letters of reference, work experience)

Special Academic Policies that Govern the ABUS-GR Degree

- The ABUS-GR does not include any MCCCD Special Requirements for Oral Communication and/or Critical Reading like the other associate degrees. (However, some university programs have a speech requirement; consult your academic advisor or transfer guide to verify the specifics for your program.)

Degree Requirements

The courses required for the Associate in Business General Requirements follow. The following websites identify the courses that apply to the different General Education Areas: [AGEC-B](#) and the [AGEC Matrix](#). Courses available for both Areas during a current or upcoming semester can also be found using the "[Find A Class](#)" tool on [maricopa.edu](#) or on each MCCCD college's website.

Requirements

Credits

I. Required Courses

22-28

Accounting

6-9

ACC111 Accounting Principles AND

ACC230 Uses of Accounting Information I AND

ACC240 Uses of Accounting Information II

OR

ACC211 Financial Accounting AND

ACC212 Managerial Accounting

OR

ACC111 Accounting Principles I AND

ACC112 Accounting Principles II AND

ACC212 Managerial Accounting

Some of the following courses can be used to satisfy both this requirement and an AGEC-B requirement. AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.

ECN211 [SB] Macroeconomic Principles

(3)

ECN212 [SB] Microeconomic Principles

(3)

FYE101 OR FYE103 Introduction To College, Career And Personal Success

(1-3)

GBS205 Legal, Ethical, and Regulatory Issues in Business

(3)

GBS221 Business Statistics

(3)

Quantitative Methods

(3-4)

GBS220 Quantitative Methods in Business OR

MAT217 or MAT218 Mathematical Analysis for Business

Note: Students planning to transfer to ASU's W.P. Carey School of Business BS program should take MAT217 or MAT218.

Students planning to transfer to ASU's W.P. Carey School of Business BA program may take GBS220, MAT217, or MAT218.

Students planning to transfer to the University of Arizona should take GBS220

II. Restricted Electives

0-6

Complete six (6) credits from the following options. Some courses may be used to satisfy both Restricted Elective and Arizona General Education Curriculum (AGEC) requirements simultaneously. AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.

CIS114DE Excel Spreadsheet

(3)

CIS133DA Internet/Web Development Level I

(3)

CIS162AD C#: Level I

(3)

GBS110 Human Relations in Business and Industry OR

MGT251 Human Relations in Business

(3)

GBS151 Introduction to Business (Recommended)

(3)

GBS220 Quantitative Methods in Business

(3)

GBS233 Business Communication

(3)

IBS101 Introduction to International Business

(3)

MGT253	Owning and Operating a Small Business	(3)
MKT271	Principles of Marketing	(3)
PAD100	21st Century Public Policy and Service	(3)
REA179	Real Estate Principles I	(3)
REA180	Real Estate Principles II	(3)
REA201	Real Estate Principles I and II	(6)
SBU200	Society and Business	(3)

III. Arizona General Education Curriculum- Business (AGEC-B) 29-37*

The AGEC-B requires a minimum of 35 credits (32 if FYC is met by a single transfer course). * Any Required and Restricted elective course(s) that also have one or more AGEC designation(s) may be used to meet AGEC-B requirements. Credits for such shared courses only count once toward the total for the degree.

Some courses may be met by Required Courses or Restricted electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGEC requirements, Required Course(s), or Restricted Elective(s). Courses may meet more than one requirement but are only counted once toward the total credits for the degree. AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.

A. First-Year Composition [FYC]	6*
ENG101 OR ENG107 AND	(3)*
ENG102 OR ENG108	(3)*
B. Literacy and Critical Inquiry [L]	(0-3)
May Be Met By GBS 233 in the Restricted Electives Area.	
C. Mathematical Applications [MA]	(3-6)
MAT212 Brief Calculus OR	(3)
MAT213 Brief Calculus OR	(4)
Higher General Education Courses in the Mathematical Applications [MA] Area	(3-5)
D. Computer/Statistics/Quantitative Applications [CS]	3
CIS105 Survey of Computer Information Systems	
E. Humanities, Arts and Design [HU]	6
Students are encouraged to choose course work from more than one discipline.	
F. Social-Behavioral Sciences [SB]	0
Met by ECN211 AND ECN212 in Required Courses.	
G. Natural Sciences [SQ/SG]	8
The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four	

credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement.

H. Awareness Areas

0-6

The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGECE requirements. (See [AGECE matrix](#) for current course values). Credits for such shared courses may only be counted once

- 1) Cultural Diversity in the United States [C] (0-3)
- 2) Global Awareness [G] OR Historical Awareness [H] (0-3)

Students transferring to ASU to major in business should complete courses from the following list (up to the 64 credit transfer maximum) to meet W.P. Carey School of Business requirements. If students do not take these prior to transfer, they may need to take additional credits to meet ASU graduation requirements:

- Any course that transfers to ASU in the SOC prefix and carries the [SB] designation
- Any course that transfers to ASU in the PSY prefix and carries the [SB] designation
- One of the following courses in Oral Communication (COM)
 - COM100 Introduction to Human Communication (3) OR
 - COM225 Public Speaking (3) OR
 - COM230 Small Group Communication (3) OR
 - COM259 Communication in Business and Professions (3)Note: COM requirements vary by business major. Check ASU's [MyPath2ASU](#) or major map for acceptable options.

IV. General Electives.

Select courses 100-level or higher if needed to complete a minimum of 62 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines. MCCC has established recommended courses and sequencing for the various associate's degrees. See <https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/associate-business-general-requirements-8900-abus-gr>

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HIS ELC for a history elective), or general electives (GEN ELC) that are numbered 100 level or higher, and completed with a grade of "C" or better, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree.

Transfer advisement information is accessible on the following websites: aztransfer.com/tools, curriculum.maricopa.edu, as well as those of individual

universities. For appropriate course selection, students should consult with an academic advisor.

Total

62**

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

**64 semester credits is the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer information.

Associate in Business, Special Requirements (ABUS-SR) Degree

Maricopa County Community College District (MCCCD)

2023-2024 Associate in Business, Special Requirements (ABUS-SR) Degree

Description

The Maricopa County Community College District Associate in Business, Special Requirements (ABUS-SR) degree requires a minimum of 62 semester credits for the program of study. A minimum grade point average of 2.0 (4.0 scale) and grades of “C” or better are required in all courses to earn the degree. The Associate in Business-Special Requirements degree is governed by the MCCCD General Academic Policies for Transfer Degrees.

This degree provides the first two years of a four-year curriculum for students who wish to pursue Computer Information Systems majors at Arizona’s public universities. With a bachelor’s degree, students may pursue a number of careers, including but not limited to accountancy, business administration, business data analytics, computer information systems, economics, entrepreneurship, finance, marketing, management, retail management, and supply chain management.

The Associate in Business-Special Requirements degree includes the following components:

- I. Required Courses
- II. Arizona General Education Curriculum for Business (AGEC-B)
- III. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Associate in Business Special Requirements (ABUS-SR) degree is designed for students who plan to transfer to four-year colleges and universities. In general, the components of this degree meet requirements for Computer Information Systems majors at Arizona’s public universities. Other Business majors should follow the Associate in Business General Requirements (ABUS-GR) pathway instead. Generally, the ABUS-SR degree transfers as a block without loss of credit to Arizona’s public universities and other institutions with district-wide articulation agreements. It does not, however, guarantee acceptance into particular university majors/programs with a limited number of students. Students should consult with their transfer institution for any specific admission requirements (e.g., GPA, letters of reference, work experience).

Special Academic Policies that Govern the ABUS-SR Degree

- The ABUS-SR does not include any MCCCD Special Requirements for Oral Communication and/or Critical Reading like the other associate degrees. (However, some university programs have a speech requirement; consult your academic advisor or transfer guide to verify the specifics for your program.)

Degree Requirements

The courses required for the Associate in Business Special Requirements follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas:

[AGEC-B](#) and the [AGEC Matrix](#). Courses available for both Areas during a current or upcoming semester can also be found using the [Find A Class](#) tool on maricopa.edu or on each MCCCDC college's website.

Requirements

Credits

I. Required Courses

28-34

Accounting

(6-9)

ACC111 Accounting Principles AND

ACC230 Uses of Accounting Information I AND

ACC240 Uses of Accounting Information II

OR

ACC211 Financial Accounting AND

ACC212 Managerial Accounting

OR

ACC111 Accounting Principles I AND

ACC112 Accounting Principles II AND

ACC212 Managerial Accounting

Some of the following courses can be used to satisfy both this requirement and an AGECE-B requirement. AGECE designations are subject to change. See [AGECE matrix](#) for each course's value(s) in the semester it is taken.

ECN211 [SB] Macroeconomic Principles

(3)

ECN212 [SB] Microeconomic Principles

(3)

FYE101 OR FYE103 Introduction To College, Career And Personal Success

(1-3)

GBS205 Legal, Ethical, and Regulatory Issues in Business

(3)

GBS221 Business Statistics

(3)

CIS162AD C#: Level 1

(3)

CIS250 Management of Information Systems(3)

Quantitative Methods

(3-4)

GBS220 Quantitative Methods in Business OR

MAT217 or MAT218 Mathematical Analysis for Business

Note: Students planning to transfer to ASU's W.P. Carey School of Business BS program should take MAT217 or MAT218.

Students planning to transfer to ASU's W.P. Carey School of Business BA program may take GBS220, MAT217, or MAT218.

Students planning to transfer to the University of Arizona should take GBS220

II. Arizona General Education Curriculum- Business (AGECE-B)

29-37*

The AGECE-B requires a minimum of 35 credits (32 if FYC is met by a single transfer course). * Any Required and Restricted elective course(s) that also have one or more AGECE designation(s) may be used to meet AGECE-B requirements. Credits for such shared courses only count once toward the total for the degree.

Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGECE requirements,

Required Course(s). Courses may meet more than one requirement but are only counted once toward the total credits for the degree. AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.

A. First-Year Composition [FYC] ENG101 OR ENG107 AND ENG102 OR ENG108	6* (3)* (3)*
B. Literacy and Critical Inquiry [L]	3
C. Mathematical Applications [MA] MAT212 Brief Calculus OR MAT213 Brief Calculus OR Higher General Education Courses in the Mathematical Applications [MA] Area	3-5 (3) (4) (3-5)
D. Computer/Statistics/Quantitative Applications [CS] CIS105 Survey of Computer Information Systems	3
E. Humanities, Arts and Design [HU] Students are encouraged to choose course work from more than one discipline.	6
F. Social-Behavioral Sciences [SB] Met by ECN211 AND ECN212 in Required Courses.	0
G. Natural Sciences [SQ/SG] The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement.	8
H. Awareness Areas The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See AGEC matrix for current course values). Credits for such shared courses may only be counted once	0-6
1) Cultural Diversity in the United States [C]	(0-3)
2) Global Awareness [G] OR Historical Awareness [H]	(0-3)

Students transferring to ASU to major in business should complete courses from the following list (up to the 64 credit transfer maximum) to meet W.P. Carey School of Business requirements. If students do not take these prior to transfer, they may need to take additional credits to meet ASU graduation requirements:

- Any course that transfers to ASU in the SOC prefix and carries the [SB] designation
- Any course that transfers to ASU in the PSY prefix and carries the [SB] designation
- One of the following courses in Oral Communication (COM)
 - COM100 Introduction to Human Communication (3) OR
 - COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) OR
COM259 Communication in Business and Professions (3)
Note: COM requirements vary by business major. Check ASU's
[MyPath2ASU](#) or major map for acceptable options.

III. General Electives.

Select courses 100-level or higher if needed to complete a minimum of 62 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines. MCCCDC has established recommended courses and sequencing for the various associate's degrees. See <https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/associate-business-special-requirements-8800-abus-sr>

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HIS ELC for a history elective), or general electives (GEN ELC) that are numbered 100 level or higher, and completed with a grade of "C" or better, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree.

Transfer advisement information is accessible on the following websites: aztransfer.com/tools, curriculum.maricopa.edu, as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

Total

62**

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

**64 semester credits is the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer information.

Associate in General Studies (AGS) Degree

Maricopa County Community College District (MCCCD)

2023-2024 Associate In General Studies (AGS) Degree and General Education Requirements

Description

The Maricopa County Community College District Associate in General Studies degree requires 60-64 semester credits in courses numbered 100 and above. The degree includes the following components:

- I. **Required Courses** (1-3 credits)
First Year Experience (all courses completed with a grade of “C” or better)

- II. **General Education** (minimum of 35 credits)
Core Areas (all courses completed with a grade of “C” or better)
 - First-Year Composition
 - Mathematics
 - Computer Usage
 - Oral Communication
 - Critical Reading**Distribution Areas** (all courses completed with a grade of “D” or better):
 - Humanities, Arts and Design
 - Social-Behavioral Sciences
 - Natural Sciences
 - Literacy and Critical Inquiry

- III. **General Electives** (enough additional courses numbered 100 or above, completed with a grade of “D” or better, to bring total credits to at least 60)

Purpose of the Degree

The Associate in General Studies (AGS) degree is recommended for students whose educational goals require flexibility. The degree allows students to apply any course numbered 100 or above, including some that are not transferable to the Arizona public universities and may not be transferable to other universities, toward the credits required for the degree. Therefore, for students who intend to transfer to another college or university to pursue a bachelor’s degree, this degree may be less appropriate than other associate degrees offered by the Maricopa Community Colleges: Associate in Arts (AA); Associate in Arts, Elementary Education (AAEE); Associate in Arts, Fine Arts (AAFA); Associate in Business-General Requirements (ABUS-GR); Associate in Business-Special Requirements (ABUS-SR); Associate in Science (AS); and all emphases of these degrees

Academic Policies that Govern the Associate in General Studies Degree:

- The graduation policies within the general catalog must be satisfied (Administrative Regulation 2.3.9).
First Year Experience is required (FYE 101 or FYE 103).

- A single course can simultaneously count toward a Core Area and a Distribution Area requirement. Courses that meet this criterion are bold print and underscored in the Core areas and Distribution areas (on the course list at the conclusion of this document). For example,

CRE101 may be used to satisfy both the Literacy and Critical Inquiry requirement of the Distribution area and the Core curriculum's Critical Reading area. While multiple requirements can be met with a single course, the credits are only counted one time toward the required minimum for the degree. A course cannot satisfy more than one Core area, even if it is approved for more than one Core area. A course cannot satisfy more than one Distribution area, even if it is approved for more than one Distribution area.

- Credits transferred from outside of MCCCDC must be completed with a grade of “C” (2.0 on a 4.0 scale) or better. Transfer credit graded pass/fail or pass/no credit may be transferred if documentation collected by the community college indicates that this was the only grading option available to the student and that the Pass grade (“P”) is equivalent to a “C” or better.
- Completion of the AGS with a minimum Grade Point Average (on a 4.0 scale) of at least 2.0 for Arizona residents and 2.50 for non-residents meets Arizona public university general admission requirements. However, meeting all AGS minimums does not ensure admission to specific university majors or programs with selective admission processes and/or limited enrollment. Furthermore, because the AGS is not designed to align with the requirements for bachelor's degrees, not all credits may be transferable and students may have deficiencies in lower division (100- and 200-level) courses for a particular major.

Summary of Degree Requirements:

Details on how to identify courses approved for each of the categories is described following the outline.

I. Required Courses	1-3
FYE101 Introduction to College, Career and Personal Success OR FYE103 Exploration of College, Career and Personal Success	
II. MCCCDC General Education	35-48*
Core Areas	13-19
1. First-Year Composition ENG101 OR ENG107 AND ENG102 OR ENG108	6*
2. Mathematics	3-6
3. Computer Usage	1
4. Oral Communication COM100 Introduction to Human Communication OR COM110 Interpersonal Communication OR COM225 Public Speaking OR COM230 Small Group Communication (3 credits) OR COM100AA & COM100AB & COM100AC (3 credits) OR COM110AA & COM110AB & COM110AC (3 credits)	3
5. Critical Reading Students may demonstrate proficiency through assessment. CRE101 Critical Reading OR equivalent as indicated by assessment	0-3

- Distribution Areas** **22-29**
1. Humanities, Arts and Design 9
Students are encouraged to choose course work from more than one discipline.
 2. Social-Behavioral Sciences 6-9
Students are encouraged to choose course work from more than one discipline. If COM100, COM110, or COM230 is shared between the AGS' Core and Distribution areas, the Social-Behavioral Sciences requirements for the degree may be met with just 6 additional credits in this area (see Academic Policies section on prior page). The credits for the shared COM course are only counted once, but they may be applied to meet both Oral Communication and Social-Behavioral Science requirements.
 3. Natural Sciences 7-8
Two lecture courses and one corresponding laboratory course are to be selected. Credits for lecture and lab components may be combined or each may carry separate credit. For appropriate course selection students should consult with an academic advisor.
 4. Literacy and Critical Inquiry 0-3
The Literacy and Critical Inquiry requirement may be met by CRE101 (which also satisfies Critical Reading) or COM225 (which also satisfies Oral Communication) with a grade of "C" or better. The credits for shared courses are only counted once, but may be applied to meet both a Core (see course list above) and a Distribution Area requirement.

Alternatively, the Literacy and Critical Inquiry requirement may be met with a grade of "D" or better by selecting an additional 3 credits from the list of approved options.

III. General Electives **13-26**
Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits.

Associate in General Studies Total Credits: **60-64**

*First-Year Composition may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

All courses listed meet AGS requirements as specified. Courses in Purple Italic Underline also meet Arizona General Education Curriculum AGEC requirements.

Courses in **bold print and underscored** simultaneously count towards a Core Area and a Distribution requirement.

AGS GENERAL EDUCATION CORE
(16 credits - grade of "C" or better)*

First-Year Composition (6 credits)*

ENG English [101, 107] & [102, 108]

Oral Communication (3 credits)

COM Communication 100, 100AA & 100AB & 100AC, 110, 110AA & 110AB & 110AC, 225, 230

Critical Reading (3 credits)

CRE Critical Reading 101 or Equivalent as indicated by assessment

Mathematics (3 credits)

MAT Mathematics 112, 114, 115, 120, 121, 122, 126, 140, 141, 142, 145, 146, 150, 150&182, 151, 151&182, 152, 152&182, 155, 155&182, 156, 156&182, 172, 187, 206, 212, 213, 217, 218, 220,

[221](#), [225](#), [227](#), [230](#), [231](#), [240](#), [241](#), 256, 257, [276](#), [277](#)

Equivalent course/ Satisfactory completion of a higher level Mathematics course.

Computer Usage (1 credit)

Computer-related course or demonstration of comparable computer skills. Additional courses may be approved by individual colleges. Students should contact their advisor for college-specific courses satisfying the requirement.

ACC	Accounting 115
ADA	Advertising Arts 169, 175, 177, 183, 283, 289
AJS	Administration of Justice Studies 205
ARC	Architecture 243, 244, 245
AVC	Art and Visual Communication 100, 169, 170, 173, 175, 177, 179, any 180++ course, 183, 283, 289
BIO	Biology 283
BPC	Business-Personal Computers Any BPC Course(s), including 110
CIS	Computer Information Systems Any CIS Course(s), including 105 , 162AB , 162AD , 163AA (and except 159, 162AC, 217AM, 259,)
CSC	Computer Science Any CSC Course(s), including 100AA , 100AB , 110 , 110AA , 110AB , 120 , 150 , 150AA , 180 180AA , 180AB , 181 , 181AA , 181AB , 182 , 182AA , 205 , 205AA , 205AB , 205AC , 205AD , 283 (and except 200, 200AA, 200AB, 210, 210AA, 210AB)
CTR	Court Reporting 101, 102
DFT	Drafting Technology 105AA **, 254AA <i>**Must be taken with CSC100AA or AB to meet AGEC value</i>
ECH	Early Childhood Education 238
EDU	Education 115
EED	Early Education 115
EEE	Electrical Engineering 120
ELE	Electronic 131, 181, 241, 243, 245
ELT	Electronic Technology 131, 243
ENG	English 100AE
FON	Food & Nutrition 100
GBS	General Business 221

GIS	Geographic Information Science 205 , 211
HRM	Hotel Restaurant Management 126
JRN	Journalism 133
LAS	Paralegal Studies 229
MAT	Mathematics 206
MTC	Music Theory/Composition 180 , 191
MUC	Music: Commercial/Business 180
NET	Networking Technology 181
OAS	Office Automation Systems 111AA
PSY	Psychology 230 , 230WL
SWU	Social Work 225

AGS GENERAL EDUCATION DISTRIBUTION AREAS

(28-29 credits – grade of “D” or better)

Humanities, Arts and Design (9 credits)

Students are encouraged to choose courses from more than one discipline.

AHU	Arabic Humanities 245
AIS	American Indian Studies 213
AJS	Administration of Justice Studies 123
ARH	Art Humanities Any ARH Course(s), including 100 , 101 , 102 , 109, 110, 112, 115 , 118 , 145 , 201 , 203 , 204 , 217 , 216, 240, 250
ART	Art 131
ASB	Anthropology 211 , 214 , 220 , 222 , 223 , 253
CCS	Chicana and Chicano Studies 101
COM	Communication 241
CON	Construction 101 (formerly CNS101)
DAH	Dance Humanities 100 , 201 , 250 , 255
EDU	Education 230 (eff. Spring '22), 291 , 292 , 294
ENG	English 200 , 213 , 218
ENH	English Humanities Any ENH Course(s), including 110 , 111, 112 , 113 , 114 , 117, 130, 140AA , 190 , 201 , 202 , 204 , 206 , 214 , 221 , 222 , 230 , 231 , 232 , 235 , 241 , 242 , 245 , 251 , 253 , 254 , 255 , 256 , 259 , 260 , 275 , 277 , 277AE , 277AG , 277AA-AK , 280 , 284 , 285 , 291 , 294 , 295 (and except 250)
FMT	Film, Media, and Theatre 107
FRE	French 265
GST	Game Studies 202
HCR	Health Care Related 210

HIS History [101](#), [102](#), [103](#), [108](#), [110](#), [111](#), [113](#), [114](#), [203](#), [212](#), [251](#), [252](#)

HON Honors [190](#)

HUM Humanities Any HUM course(s), including [100](#), [101](#), [107](#), [108](#), [190AA](#), [190AB](#), [190AC](#), [190AD](#), [190AE](#), [190AF](#), [190AG](#), [190AH](#), [190AI](#), [201](#), [202](#), [205](#), [206](#), [209](#), [210](#), [211AA](#), [211AE](#), [212](#), [213](#), [214](#), [215](#), [216](#), [220](#), [235](#), [245](#), [250](#), [251](#), [260](#), [261](#), [292](#), [295](#) (and except [120](#), [225](#))

INT Interior Design [115](#), [120](#)

LAT Latin [201](#), [202](#)

MHL Music: History/Literature [140](#), [143](#), [145](#), [146](#), [153](#), [155](#), [194](#), [204](#), [241](#), [242](#), [295](#)

PHI Philosophy Any PHI Course(s), including [101](#), [103](#), [104](#), [105](#), [201](#), [212](#), [213](#), [214](#), [215](#), [216](#), [218](#), [224](#), [233AA](#), [233A](#), [233AC](#), [244](#), [245](#), [250](#), [251](#), [282AC](#)

REL Religious Studies Any REL Course(s), [100](#), [101](#), [151](#), [200](#), [202](#), [203](#), [205](#), [206](#), [207](#), [210](#), [211](#), [212](#), [213](#), [214](#), [218](#), [223](#), [225](#), [230](#), [240](#), [244](#), [245](#), [248](#), [250](#), [251](#), [270](#), [271](#), [277](#), [292](#), [294](#), [295](#), [282AA-AC](#), [290](#), [291](#)

SLC Studies in Language & Culture [201](#), [202](#)

SPA Spanish [241](#), [242](#), [265](#), [266](#)

SPH Spanish Humanities [241](#), [245](#)

SSH Sustainability/Social Sciences and Humanities [111](#)

STO Storytelling [292](#), [294](#)

SWU Social Work [183](#)

TEC Textiles and Clothing [105](#), [125](#)

THE Theater [111](#), [220](#)

THF Theatre and Film [205](#), [206](#), [210](#)

THP Theater/Performance/Production [217](#), [241](#)

WST Women's Studies [209](#), [284](#), [285](#), [290](#)

Social-Behavioral Sciences (6-9 credits)

Students are encouraged to choose courses from more than one discipline. Social-Behavioral Sciences requirements may be met with 6 credits only if COM100, COM110, or COM230 is shared between Core and Distribution (see Academic Policies section). The credits are only counted once, but may be

applied to meet Oral Communication and Social-Behavioral Science requirements.

AFR African American Studies [202](#), [203](#), [204](#)

AIS American Indian Studies [101](#), [140](#), [141](#), [160](#)

AJS Administration of Justice Studies [101](#), [119](#), [200](#), [225](#), [258](#), [270](#)

ASB Anthropology [100](#), [102](#), [202](#), [211](#), [222](#), [223](#), [226](#), [230](#), [235](#), [252](#)

ASM Anthropology [104/275](#)

BHS Behavioral Health Services Technology [150](#), [155](#), [175](#), [210](#)

CAP Counseling and Applied Psychology [120](#)

CCS Chicana and Chicano Studies [202](#)

CFS Child/Family Studies [112](#), [157](#), [159](#), [176](#), [205](#), [235](#), [259](#)

COM Communication [100](#), [100AA&100AB](#) & [100AC](#), [110](#), [110AA&110AB](#) & [110AC](#), [163](#), [230](#), [250](#), [263](#)

CPD [180](#)

ECH Early Childhood Education [176](#)

ECN Economics [160](#), [211](#), [212](#), [213](#), [250](#)

EDU Education [221](#), [222](#)

EED Early Education [200](#), [205](#), [222](#)

EMT Emergency Medical Technology [258](#)

ENG English [213](#)

FOR Forensic Science [275](#)

FSC Fire Science Technology [258](#)

GCU Cultural Geography [102](#), [113](#), [121](#), [122](#), [141](#), [221](#)

HES Health Science [100](#)

HIS History any HIS Course(s), including [100](#), [101](#), [102](#), [103](#), [104](#), [105](#), [106](#), [108](#), [109](#), [113](#), [114](#), [140](#), [145](#), [173](#), [190](#), [201](#), [203](#), [204](#), [209](#), [240](#), [241](#), [242](#), [273](#), [277](#) (and except [111](#), [170](#), [251](#), [252](#))

HON Honors [201](#)

HUM Humanities [235](#)

IBS International Business [109](#)

IFS Information Studies [201](#), [210](#), [213](#)

MCO Mass Communications [120](#)

MGT Management [229](#), [230](#)

PAD Public Administration [200](#)

POS Political Science Any POS course(s), including [100](#), [101](#), [110](#), [113](#), [114](#), [115](#).

- [120](#), [125](#), [130](#), [140](#), 180, [210](#), 221, 222, [223](#), 281AB, 282AA-AC, [285](#)
- PSY Psychology [101](#), 123, [132](#), 156, [157](#), [215](#), [218](#), [225](#), [235](#), [240](#), [241](#), [243](#), [250](#), [260](#), [262](#), [266](#), [277](#), [280](#), [292](#)
- REC Recreation [120](#)
- SBU Society and Business [200](#)
- SLC Studies in Language & Culture [201](#)
- SOC Sociology Any SOC course(s), including [101](#), [110](#), [130](#), [141](#), [157](#), [180](#), [212](#), [220](#), [241](#) [251](#), [266](#), [270](#) (and except 143, 245, 253, 265)
- SSH Sustainability/Social Sciences and Humanities [111](#)
- SUS Sustainability/Natural Sciences [110](#)
- SWU Social Work [171](#), [182](#), [250](#), [258](#), [295](#)
- TEC Textiles and Clothing [105](#)
- WED Wellness Education [110](#)
- WST Women's Studies [100](#), [161](#)
- YAQ Yaqui Indian History and Culture [100](#)

Natural Sciences (7-8 credits)

Two lecture courses and one corresponding laboratory course are to be selected. The lecture and corresponding laboratory course(s) may carry separate credit. For appropriate course selection students should consult with an advisor.

- AGS Agricultural Science [164](#), [260](#)
- ASB Anthropology [231](#)
- ASM Anthropology [104](#), [265](#), [275](#)
- AST Astronomy [101](#), [106](#), [111](#), [112](#)
- BIO Biology [100](#), [101](#), [102](#), [105](#), [107](#), [108](#), [109](#), [111](#), [145](#), 149AF, 149AH, 149AK, 149AL, 149AM, 149AN, [156](#), [156XT](#), [160](#), [181](#), [181XT](#), [182](#), [182XT](#), [201](#), [201XT](#), [202](#), [205](#), [241](#)
- CHM Chemistry [107&107LL](#), [130&130LL](#), [130AA](#), [150&151LL](#), [150AA](#), [151&151LL](#), [151AA](#), [152&152LL](#), [152AA](#), [154&154LL](#), [230AA](#), [230&230LL](#)
- CON Construction [106](#) (formerly CNS106)
- ENV Environmental Sciences [101](#)
- FON Food and Nutrition [241&241LL](#)
- FOR Forensic Science [105](#), [106](#), [275](#)
- GLG Geology [101&103](#), [101IN](#), [102&104](#), [102IN](#), [105](#), [106](#), [110&111](#), [110IN](#), 121,

- 140, 229AB-AC, 230AA-AC, 231AA-AD, 280, 281, 282AA
- GPH Physical Geography [111&112](#), [113](#), [211](#), [212&214](#), [213&215](#)
- PHS Physical Science [110](#), [115](#), [120](#)
- PHY Physics [101](#), [101AA](#), [111](#), [111AA](#), [112](#), [115](#), [116](#), [121](#), [131](#)
- PSY Psychology [275](#), [290AB](#), [290AC](#)

Literacy and Critical Inquiry (0-3 credits)

Literacy requirements may be met with 0 credits only if CRE101 or COM225 is shared between Core and Distribution (see Academic Policies section). The credits are only counted once, but may be applied to meet [Critical Reading and Literacy and Critical Inquiry] or [Oral Communication and Literacy and Critical Inquiry] requirements.

- AIS American Indian Studies [203](#), [213](#)
- COM Communication [222](#), [225](#)
- CAP Counseling and Applied Psychology [260](#)
- CPD Counseling and Personal Development [160](#)
- CRE Critical Reading [101](#), [201](#)
- CUL Culinary Arts [223](#)
- DAH Dance Humanities [255](#)
- EDU Education [220](#), [282AC](#)
- ENG English [111](#), [200](#), [215](#), [216](#), [217](#), [218](#)
- ENH English Humanities [241](#), [253](#), [254](#), [255](#), [277AE](#), [277AG](#)
- EXS Exercise Science [290](#)
- FON Food and Nutrition [225](#)
- GBS General Business [233](#)
- GPH Physical Geography [267](#)
- HUM Humanities [225](#), [235](#), [250](#), [251](#)
- IFS Information Studies [201](#)
- JRN Journalism [201](#), [234](#)
- MCO Mass Communications [220](#)
- MHL Music: History/Literature [204](#)
- PHI Philosophy [103](#), [218](#), [224](#), [244](#)
- POS Political Science [115](#)
- PSY Psychology [290AB](#), [290AC](#)
- REL Religious Studies [203](#), [205](#), [207](#), [244](#)
- SLC Studies in Language & Culture [202](#)
- THE Theatre [220](#)
- THP Theatre Performance/Production [241](#)

Elective Courses (15-22 credits)

May select courses from prefixes already chosen for General Education Distribution requirements in order to develop depth in one or more subject areas.

*First-Year Composition may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Associate in Science (AS) Degree

Maricopa County Community College District MCCCDC 2023-2024 Associate In Science (AS) Degree

Description

The Maricopa County Community College District Associate in Science (AS) degree requires a minimum of 60 semester credits for the program of study; minimum total credits vary by specific emphasis (for example, Associate in Science, Emphasis in Physics). Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis for credit minimums. A minimum grade point average of 2.0 (4.0 scale) and grades of “C” or better are required in all courses to earn the degree. The AS degree is governed by the MCCCDC General Academic Policies for Degrees Designed for University Transfer.

The Associate in Science degree includes the following components:

- I. Program Prerequisites (as specified by emphasis area)
- II. Required Courses
- III. Restricted Electives (as specified by emphasis area)
- IV. Arizona General Education Curriculum for Science (AGEC-S)
- V. MCCCDC Additional Requirements (Oral Communication and Critical Reading)
- VI. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Associate in Science (AS) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors with more stringent mathematics and mathematics-based science requirements. Generally, the degree will transfer as a block without loss of credit to Arizona’s public universities and other institutions with district-wide articulation agreements.

It does not, however, guarantee acceptance into particular university majors/programs with a limited number of students. Students should consult with their transfer institution for any specific admission requirements (e.g., GPA, letters of reference, work experience).

In most cases, courses used to satisfy the MCCCDC Associate in Science (AS) will apply to general university graduation requirements of the majors that align with the AS degree; however, students need to be aware of any specific requirements of their intended major at the university to be sure they select courses that will meet them. Information regarding the articulation of the AS with majors at the Arizona public universities can be accessed via the following website: aztransfer.com/tools

It is recommended that students select courses that meet more than one general education and/or awareness area requirement. Doing so will maximize the number of math and science electives the student can take as part of the Associate in Science degree.

Special Academic Policies that Govern the Associate in Science Degree

- The AGECS does not require a course with [CS] Computer/Statistics designation.

- Unlike the AGECA and AGECS, the same course is allowed to satisfy the ([L] and [HU]) or ([L] and [SB]) areas for the AGECS. The credits for such a “shared” course are only counted once toward the required minimum for the degree.

Degree Requirements

The requirements for the Associate in Science (AS) follow. The AS degree requires at least 60 credits; however, minimum credits for the AS may vary for a specific area of emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis and credit minimums. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: [AGECS](#) and the [AGEC Matrix](#).

Requirements

Credits

I. Program Prerequisites

Number varies

Program prerequisites for the AS degree vary by specific emphasis, and are neither required for all emphases nor for the general AS degree without a specific emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis for specific courses required and credit minimums.

II. Required Courses

Number varies

Students must complete FYE 101 (1) or FYE 103 (3) and select the required courses for the specific AS degree emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis for specific courses required and credit minimums.

III. Restricted Electives

Number varies

Restricted electives for the AS degree vary by specific emphasis and are not required for the general AS degree without a specific emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis for specific courses required and credit minimums.

IV. Arizona General Education Curriculum—Science (AGECS)

up to 56

The AGECS requires a minimum of 36 credits (33 if FYC is met by single transfer course)*. Courses applied to meet AGECA requirements vary by emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis for specific courses required and credit minimums.

Any prerequisite/required/restricted elective courses that also have one or more AGECS designation(s) may be applied toward both requirements. Credits for such shared courses are only counted once toward the total credits for the degree.

AGECS designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken. Some of the courses have been approved for more than one designation. Notes below will show how such courses may be used to meet multiple degree requirements.

- | | |
|---|--------------|
| A. First-Year Composition [FYC] | 6* |
| ENG101 OR ENG107 AND | (3)* |
| ENG102 OR ENG108 | (3)* |
| B. Literacy and Critical Inquiry [L] - COM225 Public Speaking | 0-3** |

Students are strongly encouraged to choose an [L] course that also has [HU] or [SB] designation or to use CRE101 or COM225 from the Maricopa Additional Requirements Area to satisfy the [L] requirement. It may also have been approved to satisfy one or more Awareness Areas ([C], [G], [H]). (AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.)

- C. Mathematical Applications [MA] **4-5**
The AGECS requires the first semester of a calculus sequence designed for scientists and engineers (MAT220 or MAT221) or any other [MA] designated course for which Calculus I is a prerequisite.
- D. Humanities, Arts and Design [HU] **6**
For the AGECS, a single course with both [HU] and [L] designations may satisfy both Areas. Note that some [HU] courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area(s). (AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.)
- E. Social-Behavioral Sciences [SB] **6**
For the AGECS, a single course with both [SB] and [L] designations may satisfy both Areas. Note that some [SB] courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area(s). (AGEC designations are subject to change. See [AGEC matrix](#) for each course's value(s) in the semester it is taken.)
- F. Natural Sciences [SQ/SG] **8-10**
Students must complete eight (8) to ten (10) credits of General Chemistry, University Physics, General Biology for Majors, or Physical and Historical Geology. Consult specific requirements of university transfer majors for guidance or refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis.
- [(CHM150 or CHM151) & CHM151LL] or
CHM150AA or CHM151AA General Chemistry I
AND
[CHM152 & CHM152LL] or CHM152AA General Chemistry II
OR
- PHY115 or PHY121 University Physics I
AND
PHY116 or PHY131 University Physics II
OR
- BIO181 or BIO181XT General Biology (Majors) I
AND
BIO182 or BIO182XT General Biology (Majors) II
OR
GLG101IN Introduction to Geology I - Physical or
GLG101 Introduction to Geology I - Physical Lecture and
GLG103 Introduction to Geology I – Physical Lab

AND

GLG102IN Introduction to Geology II – Historical or
GLG102 Introduction to Geology II - Historical Lecture and
GLG104 Introduction to Geology II – Historical Lab

G. Subject Options - Math/Science 6-10

Students should refer to transfer resources, including academic advisement and transfer guides, to select six (6)- ten (10) additional math and/or science credits that meet requirements for the selected major.

This Math/Science requirement can be met by selecting Mathematics course(s) (MAT) that require Calculus I as a prerequisite and/or Computer Science course(s) (CSC) and/or additional Science courses from the following disciplines: Astronomy, Biology, Botany, Chemistry, Engineering, Environmental Science, Geology, Physical Geography, Physics, Zoology (MCCCD prefixes AST, BIO, CHM, ECE, EEE, ENV, GLG, GPH, and/or PHY)

H. Awareness Areas 0-6

The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See [AGEC matrix](#) for current course values). Credits for such shared courses may only be counted once

- 1) Cultural Diversity in the United States [C] (0-3)
Met by EDU222 and EDU230 in Required Courses.
- 2) Global Awareness [G] OR Historical Awareness [H] 0-(3)

V. MCCCD Additional Requirements 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGEC requirements. See the [AGEC matrix](#) on aztransfer.com/tools for course designations.

A. Oral Communication (0-3)

COM100 [SB] Introduction to Human Communication OR
COM110 [SB] Interpersonal Communication OR
COM225 [L] Public Speaking OR
COM230 [SB] Small Group Communication (3 credits) OR
COM100AA & COM100AB & COM100AC [SB] (3 credits) OR
COM110AA & COM110AB & COM110AC [SB] (3 credits)

B. Critical Reading (0-3)

CRE101 [L] Critical Reading OR equivalent as indicated by assessment

VI. General Electives 0-28

Select courses 100-level or higher if needed to complete a minimum of 60 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. MCCCD has established recommended courses and sequencing to align with various "Emphasis Areas" in one of nine different "Fields of Interest." See maricopa.edu/degrees-certificates for links to these transfer pathways.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer.com/tools, maricopa.edu/degrees-certificates/transfer/pathways-partners as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

Total

60-64***

*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

** (0 only if shared with HU or SB)

**64 semester credits is the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer information.

Academic Certificate (AC)

Maricopa County Community College District (MCCCD) 2023-2024 Academic Certificate (AC)

Purpose of the Academic Certificate

The Maricopa County Community College District Academic Certificate (AC) is a defined and coherent program of study that is recommended for students who wish to gain additional expertise in a specific area of emphasis in an academic discipline. While this program of study can result in proficiency in the specified skills and competencies, as well as mastery of a body of knowledge, it is not designed to prepare someone for employment in a specific occupation. The coursework for an Academic Certificate may be from a variety of disciplines or it can be discipline specific. There is no required general studies component to an Academic Certificate; however, the program may include some courses that have specific general education (AGEC) designations such as Humanities, Arts and Design [HU], Social-Behavioral Sciences [SB], Literacy and Critical Inquiry [L], or Cultural Awareness [C]. (See [AGEC matrix](#) for current course values.)

Academic Policies that Govern the Academic Certificate:

- * Although the program of study for an Academic Certificate (AC) does not have a mandated minimum number of credit hours, most ACs require approximately 12-39 credit hours in courses numbered 100 and above; students must have earned a minimum of 6 credits toward the certificate at the institution awarding the certificate. For certificates with less than 6 credit hours, all credits must be completed at the college granting the award.
- * Students must earn a grade of C or better in each course in the program.
- * Follows the graduation policies listed in the college's general catalog for the appropriate catalog year.
- * Any course cross-referenced under another prefix(es) (for example ENH291/EDU291-Children's Literature) covers identical content and its credits can only be counted once toward certificate requirements.
- * Although ACs may include a subset of coursework required in particular transfer degrees, the intent of an AC is not to align with any specific university major. There is no presumption of block transfer to another college or university.
- * May have admission criteria established by the college if and when appropriate.
- * Generally offered at a limited number of colleges. For a listing of all ACs available in the district and their affiliated college(s) see the [CCTA web site: https://curriculum.maricopa.edu/](https://curriculum.maricopa.edu/).

Associate Degrees - Emphasis In...

[Associate in Arts, Emphasis in American Indian Studies - 8126](#)

[Associate in Arts, Emphasis in Anthropology - 8109](#)

[Associate in Arts, Emphasis in Communication - 8124](#)

[Associate in Arts, Emphasis in Community Health - 8145](#)

[Associate in Arts, Emphasis in Counseling and Applied Psychological Science - 8137](#)

[Associate in Arts, Emphasis in Criminal Justice - 8144](#)

[Associate in Arts, Emphasis in Early Childhood Education - 8132](#)

[Associate in Arts, Emphasis in Economics - 8111](#)

[Associate in Arts, Emphasis in Educational Studies Early Childhood - 8134](#)

[Associate in Arts, Emphasis in English \(Creative Writing\) - 8118](#)

[Associate in Arts, Emphasis in English \(Literature\) - 8110](#)

[Associate in Arts, Emphasis in Exercise Science - 8121](#)

[Associate in Arts, Emphasis in Family Life Education - 8139](#)

[Associate in Arts, Emphasis in Food Science and Technology - 8136](#)

[Associate in Arts, Emphasis in Geography - 8113](#)

[Associate in Arts, Emphasis in History - 8114](#)

[Associate in Arts, Emphasis in Humanities - 8143](#)

[Associate in Arts, Emphasis in Information Studies and eSociety - 8131](#)

[Associate in Arts, Emphasis in Japanese - 8130](#)

[Associate in Arts, Emphasis in Journalism and New Media Studies - 8146](#)

[Associate in Arts, Emphasis in Law and Policy - 8141](#)

[Associate in Arts, Emphasis in Mathematics - 8125](#)

[Associate in Arts, Emphasis in Nutritional Science - 8115](#)

[Associate in Arts, Emphasis in Philosophy - 8135](#)

[Associate in Arts, Emphasis in Political Science - 8120](#)

[Associate in Arts, Emphasis in Psychology - 8122](#)

[Associate in Arts, Emphasis in Religious Studies - 8138](#)

[Associate in Arts, Emphasis in Secondary Education - 8140](#)

[Associate in Arts, Emphasis in Social Work - 8117](#)

[Associate in Arts, Emphasis in Sociology - 8119](#)

[Associate in Arts, Emphasis in Spanish - 8129](#)

[Associate in Arts, Emphasis in Speech and Hearing Science - 8142](#)
[Associate in Arts, Emphasis in Sustainability and Environmental Studies - 8123](#)
[Associate in Arts, Emphasis in Women and Gender Studies - 8128](#)
[Associate in Arts, Fine Arts, Emphasis in Art - 8311](#)
[Associate in Arts, Fine Arts, Emphasis in Dance - 8312](#)
[Associate in Arts, Fine Arts, Emphasis in Music - 8313](#)
[Associate in Arts, Fine Arts, Emphasis in Musical Theatre - 8314](#)
[Associate in Arts, Fine Arts, Emphasis in Theatre - 8315](#)
[Associate in Science, Emphasis in Astronomy - 8605](#)
[Associate in Science, Emphasis in Biochemistry - 8610](#)
[Associate in Science, Emphasis in Biological Sciences - 8602](#)
[Associate in Science, Emphasis in Chemistry - 8603](#)
[Associate in Science, Emphasis in Computer Science - 8601](#)
[Associate in Science, Emphasis in Engineering - 8607](#)
[Associate in Science, Emphasis in Geography - Meteorology - 8604](#)
[Associate in Science, Emphasis in Geology - 8608](#)
[Associate in Science, Emphasis in Physics - 8606](#)
[Associate in Science, Emphasis in Secondary Education - 8609](#)

[GWCC Degrees and Certificates](#)

Bachelor's Degrees

Start Your Bachelor's Degree at GateWay...

Starting your college career at GateWay is a smart move. If you plan to transfer to a four-year college or university, we can help you get there! Take advantage of our transfer services, including:

- [Transfer](#) partnerships with ASU, UA, NAU, GCU, and 40+ public, private, and online institutions across the country
- Opportunities to meet with representatives from Arizona's universities on campus
- Special events, like Transfer Fairs, workshops, and more
- Help with the transfer process
- Direct course equivalency and the seamless transfer of credits*

*Speak with an Academic Advisor or visit AZ Transfer's [Course Equivalency Guide](#) for more information: <https://aztransmac2.asu.edu/cgi-bin/WebObjects/CEG>

[Nuclear Medicine Technology and Computed Tomography](#)

9305 - Bachelor of Applied Science (BAS) - (124-133 Credits)

Field of Interest: **Health Sciences**

For Information: Julie Bolin

Email: julie.bolin@gatewaycc.edu

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/nuclear-medicine-technology-and-computed-tomography-9305-bas>

Description:

The Bachelor of Applied Science (BAS) in Nuclear Medicine Technology and Computed Tomography is designed to develop competent entry-level technologists through a variety of didactic, clinical, and laboratory experiences. Upon graduation, students will be eligible for national certifications in Nuclear Medicine Technology and Computed Tomography and may pursue additional stackable post-primary certifications with the Nuclear Medicine Technology Certification Board (NMTCB) and American Registry of Radiologic Technologists (ARRT).

Program Notes:

Students must complete the following general education and introductory courses with a 3.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum: BIO201, BIO202, [(CHM130 and CHM130LL) or CHM130AA or (CHM138 and CHM138LL)], (ENG101 or ENG107), (ENG102 or ENG108), (MAT15+ or equivalent course or satisfactory completion of a higher-level algebra mathematics course), NUC100, [PHY101 or (PHY111 and PHY112)].

Students must earn a grade of C or better in each course in the program.

Admission Criteria:

1. Formal application and admission to the program.
2. Background Check Requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
3. Clinical health and safety requirements must be met prior to enrollment in any program of study course. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy and drug testing protocols.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes or during the program may result in cancellation of enrollment.
5. There are limited spaces available in the NMT program. Only students who have completed all the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.
6. As long as all general education and introductory courses have been completed, potential students residing outside of the state of Arizona can seek permission from the Program Director to be placed on the waitlist, granted a position number, and agree to take NUC100 in the semester prior to formal program admission.

Readmission Criteria:

The Program reserves the right to deny acceptance of an admission application if the applicant was dismissed from any program for issues relating to academic integrity and/or unsafe patient care.

Program Prerequisites: None**Required Courses (92-94 Credits):**

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

+ BIO201 Human Anatomy and Physiology I 4

+ BIO202 Human Anatomy and Physiology II 4

COM263 Elements of Intercultural Communication 3

+ ICE/NUC291 Computed Tomography Registry and Board Exam Preparation 1

NUC100 Introduction to Nuclear Medicine Technology 1

+ NUC101 Essentials of Nuclear Medicine Technology 1

+ NUC103 Nuclear Medicine Image Evaluation I 1

+ NUC110 Introduction to Radiation Physics and Biology for Nuclear Medicine 3

+ NUC112 Nuclear Medicine Quality Control Laboratory 1

+ NUC113 Nuclear Medicine Clinical Applications Laboratory 1

+ NUC116 Nuclear Medicine Procedures I 3

+ NUC130 Professionalism and Patient Care 1

+ NUC180 Nuclear Medicine Physics and Instrumentation 4

- + NUC202 Nuclear Medicine Clinical Practicum I 3
- + NUC203 Nuclear Medicine Image Evaluation II 1
- + NUC216 Nuclear Medicine Procedures II 3
- + NUC220 Sectional Anatomy for Nuclear Medicine 3
- + NUC259 Fundamentals of Research in Nuclear Medicine 3
- + NUC276 Nuclear Cardiology 3
- + NUC303 Nuclear Medicine Image Evaluation III 1
- + NUC316 Nuclear Medicine Procedures III 3
- + NUC322 Nuclear Medicine Clinical Practicum II 3
- + NUC350 Fundamentals of Computed Tomography and Elements of Magnetic Resonance Imaging 3
- + NUC359 Research Methods and Design 3
- + NUC372 Cardiac Practicum 1.5
- + NUC382 PET/CT Practicum 1.5
- + NUC392 Computed Tomography Clinical Practicum I 3
- + NUC402 Computed Tomography Clinical Practicum II 3
- + NUC403 Nuclear Medicine Image Evaluation IV 1
- + NUC416 Nuclear Medicine Procedures IV 3
- + NUC422 Nuclear Medicine Clinical Practicum III 3
- + NUC432 Capstone Practicum 3
- + NUC434 Nuclear Medicine Department Administration 3
- + NUC444 Nuclear Medicine Radiopharmacy 3
- + NUC450 Computed Tomography and Hybrid Imaging Case Analysis 3
- + NUC459 Nuclear Medicine Research Presentation and Publication 3
- + NUC490 Nuclear Medicine Seminar 3

Arizona General Education Curriculum (AGEC)

AGEC-A - Credits: 32-39

A single course with an [HU], [SB], [L], or [SG]/[SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on aztransfer.com for course designations.

First-Year Composition [FYC] - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] - Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Mathematics [MA] - Credits: 3-6

- + MAT150 College Algebra/Functions (5) OR
- + MAT151 College Algebra/Functions (4) OR
- + MAT152 College Algebra/Functions (3) OR
- + MAT155 College Algebra/Functions with Review (5) OR

+ MAT156 College Algebra/Functions with Review (6) OR
Higher level course in the Mathematical Applications [MA] area (3-6) 3-6

Computer/Statistics/Quantitative Applications [CS] - Credits: 3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area.
3

MAT206, PSY230, or SWU225 are recommended.

Humanities, Arts and Design [HU] - Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] - Credits: 3

Met by COM263 in Required Courses AND

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 3

Natural Sciences [SG]/[SQ] - Credits: 8-12

+ CHM130 Fundamental Chemistry (3) AND

+ CHM130LL Fundamental Chemistry Laboratory (1)

OR

+ CHM130AA Fundamental Chemistry with Lab (4)

OR

+ CHM138 Chemistry for Allied Health (3) AND

+ CHM138LL Chemistry for Allied Health Laboratory (1) 4

+ PHY101 Introduction to Physics (4) OR

+ PHY111 General Physics I (4) AND

+ PHY112 General Physics II (4) 4-8

Awareness Areas - Credits: 0

These requirements may be shared with Core Requirements.

Cultural Diversity in the US [C] - Credits: 0

Met by COM263 in Required Courses.

Historical/Global Awareness [H]/[G] - Credits: 0

Met by COM263 in Required Courses.

MCCCD Additional Requirements - Credits: 0

Courses in this area may also be applied to the AGECE Core Requirements. To minimize total credits required for degree and maximize transferable credits, it is recommended that courses be selected that meet more than one requirement wherever possible.

Oral Communication (COM) - Credits: 0

Met by COM263 in Required Courses.

MCCCD Governing Board Approval Date: August 23, 2022

Associate Degrees

Accounting

3149 - Associate in Applied Science (AAS) - (62-73 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/accounting-3149-aas>

Description:

The Associate in Applied Science (AAS) in Accounting program is designed to provide fundamental skills for individuals planning to enter the field of accounting. Possible entry-level jobs for this program include accounting clerk, accounts payable/receivable clerk, claims clerk, payroll clerk, credit clerk, bookkeeper, accounting intern, tax preparation or comparable positions. This program may prepare students for certification in Certified Bookkeeper (CB), Enrolled Agent (EA), and Certified Payroll Professional (CPP). Certificates of Completion (CCL) in Accounting and Enrolled Agent are available.

Program Notes:

Students must earn a grade of C or better in all courses in the program.

Consultation with an Academic Advisor is recommended for course selection.

This program replaces:

AAS/3130 Accounting-Specialized Para-Professional

AAS/3131 Accounting Paraprofessional

Program Prerequisites: None.

Required Courses (34-39 Credits):

ACC111 Accounting Principles I (3) AND

+ ACC230 Uses of Accounting Information I (3) AND

+ ACC240 Uses of Accounting Information II (3)

OR

ACC111 Accounting Principles I (3) AND

+ ACC112 Accounting Principles II (3) AND

+ ACC212 Managerial Accounting (3)

OR

ACC211 Financial Accounting (3) AND

+ ACC212 Managerial Accounting (3) 6-9

ACC105 Payroll, Sales and Property Taxes (3) OR

+ ACC222 Payroll Accounting (3) 3

ACC115 Computerized Accounting 3

ACC121 Individual Tax Preparation (3) OR
+ ACC221 Tax Accounting (3) 3

+ ACC219 Intermediate Accounting I 3

CIS114DE Excel Spreadsheet 3

CIS105 Survey of Computer Information Systems 3

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

GBS151 Introduction to Business 3

GBS205 Legal, Ethical, and Regulatory Issues in Business 3

GBS120 Workplace Communication Skills (3) OR

+ GBS233 Business Communication (3) 3

Restricted Electives (6 Credits):

Students must select six (6) credits from the list below:

ACC+++ Any additional ACC Accounting course(s) except ACC111, ACC112, ACC211, ACC212, ACC230, ACC240 0-6

GBS131 Business Calculations 3

+ GBS220 Quantitative Methods in Business 3

+ GBS221 Business Statistics 3

GBS261 Investments I 3

MGT101 Techniques of Supervision (3) OR

MGT175 Business Organization and Management (3) OR

MGT229 Management and Leadership I (3) 3

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR

+ ENG107 First-Year Composition for ESL (3) AND

+ ENG102 First-Year Composition (3) OR

+ ENG108 First-Year Composition for ESL (3) 6

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent by assessment 0-3

Mathematics - Credits: 3-6

Any approved general education course from the Mathematics area. 3-6

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design [HU] area. 3

Social-Behavioral Sciences - Credits: 3

ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) OR

SBU200 Society and Business (3) 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area.

MCCCD Governing Board Approval Date: June 28, 2022

Administrative Professional

3680 - Associate in Applied Science (AAS) - (62-70 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management>

Description:

The Associate in Applied Science (AAS) in the Administrative Professional degree is designed to provide training for various office positions. The curriculum incorporates people and technological skills essential for job success. Includes instruction in business communications, office procedures, public relations, accounting, records management, and report preparation. A Certificate of Completion (CCL) in Administrative Professional is also available.

Program Notes:

Students must earn a grade of C or better in all courses required within the program.

This program replaces:

AAS/3237 Administrative Technology

AAS/3238 Administrative Specialist

Program Prerequisites: None.

Required Courses (25-27 Credits):

ACC115 Computerized Accounting 3

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3

CIS113DE Microsoft Word: Word Processing 3

CIS114DE Excel Spreadsheet 3

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

GBS120 Workplace Communication Skills 3

GBS131 Business Calculations 3

GBS151 Introduction to Business 3

Select three (3) of the following courses:

BPC101AA Introduction to Computers I 1

BPC/OAS111AA Computer Keyboarding I 1

CIS121AE Windows Operating System: Level I 1

CIS121AI Mac Operating System 1

+ CIS122AE Windows Operating System: Level II 1

CIS133AA Internet/Web Development Level I-A 1

Restricted Electives (15 Credits):

Students should select fifteen (15) credits from the following courses, except courses used to satisfy the Required Courses area, in consultation with a program advisor:

ACC+++ Any ACC Accounting prefixed course (except ACC115) 3
MGT251 Human Relations in Business 3
MGT126 Customer Service Skills and Strategies 3
CIS133DA Internet/Web Development: Level I 3
+ CIS214DE Advanced Excel Spreadsheet: Level II 3
CIS103 Introduction to Social Media 3
MKT110 Marketing and Social Networking 3
CIS117DM Microsoft Access: Database Management 3
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
MKT271 Principles of Marketing 3

General Education Requirement - Credits: 22-28**General Education Core - Credits: 12-18****First-Year Composition - Credits: 6**

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3)

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3)

Critical Reading - Credits: 0-3

Any approved general education course from the Critical Reading area OR
Equivalent as indicated by assessment.

Mathematics - Credits: 3-6

Any approved general education course from the Mathematics area OR
Equivalent as indicated by assessment.

General Education Distribution - Credits: 10**Humanities, Arts and Design - Credits: 3**

Any approved general education course from the Humanities, Arts and Design area.

Social-Behavioral Sciences - Credits: 3

SBU200 Society and Business 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area.

MCCCD Governing Board Approval Date: June 28, 2022

Air Conditioning/Refrigeration/Facilities

3211 - Associate in Applied Science (AAS) - (68.5-79.5 Credits)

Field of Interest: **Applied Technology**

For Information: Larry Bruce Martz

Phone: 602-286-8643

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/air-conditioningrefrigerationfacilities-3211-aas>

Description:

The Associate in Applied Science (AAS) in Air Conditioning/Refrigeration/Facilities program is designed to provide training in the areas of heating, ventilation, air conditioning and refrigeration (HVAC/R) systems, electricity, electronic controls and instrumentation, hydronics, electro-mechanical devices, and general repair. Students will have an opportunity to learn skills necessary to assess and solve problems quickly, based upon an understanding of regulatory guidelines. The program provides students an opportunity to develop written and verbal communication skills through general education courses.

Program Notes:

Students must earn a grade of C or better for all courses within the program.

Program Prerequisites: None

Required Courses (46.5-51.5 Credits):

CON105 Construction Calculations 1.5

CON107 Construction Drawings Introduction 1

CON/HVA131 Electrical Systems 3.5

CON235 Motors: Theory and Application (4) OR

ELC/FAC115 Motors, Controls and Wiring Diagrams (3) AND

+ ELC/FAC115LL Motors, Controls and Wiring Diagrams Lab (1) 4

CON271 Construction Safety (3) OR

OSH105AA Construction Safety (3) OR

OSH106AC Industrial Safety (3) OR

Proof of OSHA 30 hour card (0) 0-3

FAC186 Electro-Mechanical Devices 3

FAC/HVA210 Facilities Air Conditioning Systems 4

FAC220 Controls and Instrumentation 4

FAC/HVA231 Codes 3

FAC235 Commercial Air and Water Test and Balance 4

FAC/HVA101 HVAC for Residential Systems I 4

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

HVA102 HVAC for Residential Systems II 5
HVA104 EPA Section 608 Technician Preparation and Certification 0.5
HVA120 HVAC Installation 4
HVA130 HVAC Troubleshooting 4

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3

Mathematics - Credits: 3-6

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
+ MAT145 College Mathematics with Review (5) OR
+ MAT146 College Mathematics with Review (6) OR
Equivalent or higher level mathematics course in the Mathematical Applications [MA] area. 3-6

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design [HU] area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences [SB] area. 3

Natural Sciences - Credits: 4

+ CHM130 Fundamental Chemistry (3) AND
+ CHM130LL Fundamental Chemistry Laboratory (1) OR
+ PHY101 Introduction to Physics (4) 4

MCCCD Governing Board Approval Date: June 28, 2022

Automotive Service

3180 - Associate in Applied Science (AAS) - (64-77 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-service-3180-aas>

Description:

The Associate in Applied Science (AAS) in Automotive Service prepares individuals to apply technical knowledge and skills to repair, service, and maintain automobiles. Instruction is in both the theoretical and practical aspects of automotive repair, service and maintenance, and includes brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air conditioning systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile Certification Tests (A1 - A8).

See program advisor for additional certificate offerings.

Program Notes:

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses (43-45 Credits):

ASE100 Introduction to Automotive Service 2

ASE110 Engine Fundamentals (4) OR

ASE110AU Engine Fundamentals (4) 4

ASE120 Automatic Transmission and Transaxle (4) OR

ASE120AU Automatic Transmission and Transaxle (4) 4

ASE130 Manual Drive Trains and Axles (4) OR

ASE130AU Manual Drive Trains and Axles (4) 4

ASE140 Automotive Steering, Suspension and Alignment (4) OR

ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR

ASE150AU Automotive Brake Systems (4) 4

ASE160 Introduction to Automotive Electrical (4) OR

ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR

ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

ASE180 Introduction to Engine Management (4) OR

ASE180AU Introduction to Engine Management OR (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4

ASE280 Engine Management (4) OR
ASE280AU Engine Management (4) 4

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

Restricted Electives (3-8 Credits):

+ ASE240 Advanced Driver Assistance Systems 2
+ ASE265 Introduction to Electric and Hybrid Vehicles 2
ASE290++ Automotive Service Internship (any suffixed courses) 1-4
ASE296++ Cooperative Education (any suffixed courses) 1-4
ASE298++ Special Projects (any suffixed courses) 1-3

General Education Requirement - Credits: 18-24

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3)
AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3)

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment 0-3

Mathematics - Credits: 3-6

GTC107 Technical Mathematics I (3) OR
+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5)
MAT146 College Mathematics with Review (6)
+ Any approved general education course from the Mathematics area 3-6

General Education Distribution - Credits: 6

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities and Fine Arts area

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social and Behavioral Sciences area

Natural Sciences - Credits: 0

Area Waived

MCCCD Governing Board Approval Date: February 28, 2023

Banking and Finance

3091 - Associate in Applied Science (AAS) - (62-69 Credits)

Field of Interest: **Business, Entrepreneurialism and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/banking-and-finance-3091-aas>

Description:

The Associate in Applied Science (AAS) in Banking and Finance program has been developed in cooperation with the Central Arizona Chapter of the American Institute of Banking and the Institute of Financial Education for entry or advancement in the banking profession. The program is designed to prepare students for the many challenges of the world of finance, since the role of the modern banker today demands specialized knowledge, flexible job performance, communication skills and customer service. A Certificate of Completion (CCL) in Banking and Finance is available.

Program Notes:

Students must earn a grade of C or better in all courses required within the program.

Program Prerequisites: None

Required Courses (31-33 Credits):

ACC111 Accounting Principles I 3

+ ACC112 Accounting Principles II 3

CIS105 Survey of Computer Information Systems 3

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

GBS103 Principles of Banking 3

GBS120 Workplace Communication Skills 3

GBS131 Business Calculations 3

GBS151 Introduction to Business 3

GBS205 Legal, Ethical, and Regulatory Issues in Business 3

GBS294 Consumer Credit 3

MGT126 Customer Service Skills and Strategies 3

Restricted Electives (9 Credits):

Students must select nine (9) credits from the list below:

+ ACC212 Managerial Accounting 3

+ ACC270AC Accounting Internship (3) OR

+ GBS270AC Business Internship (3) 3

CIS114DE Excel Spreadsheet 3

GBS206 Business Law (UCC) 3
GBS207 Business Law (General Corporate) 3
GBS261 Investments I 3

MKT267 Principles of Sales (3) OR
MKT271 Principles of Marketing (3) 3

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3)

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment. 0-3

Mathematics - Credits: 3-5

Any approved general education course from the Mathematics area. 3-5

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area.

Social-Behavioral Sciences - Credits: 3

ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3) 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area.

MCCCD Governing Board Approval Date: June 28, 2022

Beauty and Wellness

3209 - Associate in Applied Science (AAS) - (61-70 Credits)

Field of Interest: **Business, Entrepreneurialism and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/beauty-and-wellness-3209-aas>

Description:

The Associate in Applied Science (AAS) in Beauty and Wellness promotes progressive thinking, skills, and experiences to enhance personal growth and professional success. This interdisciplinary AAS is designed to provide students with business and financial acumen, effective and collaborative communication skills, critical thinking techniques, and leadership qualities to be empowered professionals. Students who complete this AAS have fundamental strategies to effectively and successfully implement innovative principles in the beauty industry to serve consumers. The Associate in Applied Science (AAS) in Beauty and Wellness may transfer to a Bachelor of Applied Science (BAS) program for students who want to pursue a bachelor's degree.

Admission Criteria:

Entry into this program requires a current, active aesthetician, cosmetology, hairstyling, or instructor license. All licenses must be in good standing.

Credits for prior learning will be awarded for equivalent Beauty and Wellness (BAW) prefix courses based on licensure.

Program Prerequisites (12-30 Credits):

Entry into this program requires a current, active Aesthetician or Aesthetician Instructor; or Cosmetology or Cosmetology Instructor; or Hairstylist or Hairstylist Instructor, or Massage Therapist or Massage Therapist Instructor license. Credits for prior learning will be awarded for equivalent Beauty and Wellness (BAW) prefix courses based on licensure.

Aesthetician License/Aesthetician Instructor License - Credits: 12

BAW102 Aesthetics Essentials 4

BAW110 Advanced Aesthetics 4

BAW115 Aesthetics Mastery 4

OR

Cosmetology License/Instructor Cosmetology License - Credits: 30

BAW104 Hair Essentials I 4

BAW106 Hair Essentials II 4

BAW114 Student Salon I 4

BAW116 Student Salon II 4

BAW119 Nail Essentials 4

BAW212 Skin Essentials 4

BAW214 Student Salon III 4
BAW218 Cosmetology State Licensure 2

OR

Hairstylist License/Instructor Hairstylist License - Credits: 20

BAW104 Hair Essentials I 4
BAW106 Hair Essentials II 4
BAW114 Student Salon I 4
BAW116 Student Salon II 4
BAW118 Hair Stylist State Licensure 4

OR

Nail Technician/Nail Technician Instructor License - Credits: 12

BAW100 Nail Technology I 4
BAW105 Nail Technology II 4
BAW111 Nail Technology III 4

OR

Massage Therapist/Massage Therapist Instructor License - Credits: 14

BAW120 Massage Therapy Basics 3.5
BAW121 Massage Therapy Advanced 3.5
BAW220 Massage Therapy Mastery I 3.5
BAW221 Massage Therapy Mastery II 3.5
Credits: 12-30

Required Courses (10-12 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

Select courses to complete a total of nine (9) credits:

BAW298++ Special Projects 1-3
GBS/HEC132 Personal and Family Financial Security 3
MGT253 Owning and Operating a Small Business 3
MKT110 Marketing and Social Networking 3

General Electives - Credits: 0-17

Select additional courses, 100-level or higher, to complete the minimum credits required for this degree.
Consult with the Program Director or an Academic Advisor.

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND

- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 6

Oral Communication - Credits: 3

- COM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) OR
- + COM225 Public Speaking (3) OR
- COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by assessment. (0) 0-3

Mathematics - Credits: 3-6

- + MAT140 College Mathematics (5) OR
- + MAT141 College Mathematics (4) OR
- + MAT142 College Mathematics (3) OR
- MAT145 College Mathematics with Review (5) OR
- MAT146 College Mathematics with Review (6) OR
- Equivalent or higher level mathematics course in the Mathematical Applications [MA] area. 3-6

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts, and Design area

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area

Recommended:

- PSY101 Introduction to Psychology (3) OR
- PSY132 Psychology and Culture (3) OR
- SOC101 Introduction to Sociology (3) OR
- SOC157 Sociology of Families and Relationships (3) OR
- SWU250 Mindfulness for Stress Management (3) OR
- WED110 Principles of Physical Fitness and Wellness (3) 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area

Recommended:

- BIO160 Introduction to Human Anatomy and Physiology (4) OR
- CHM107 Chemistry and Society (3) AND
- CHM107LL Chemistry and Society Laboratory (1) 4 OR
- CHM130 Fundamental Chemistry (3) AND
- CHM130LL Fundamental Chemistry Laboratory (1) 4 OR
- FON241 Principles of Human Nutrition (3) AND
- FON241LL Principles of Human Nutrition Laboratory (1) 4

MCCCD Governing Board Approval Date: February 28, 2023.

Construction Trades - Mechanical Trades: Plumbing **3069 - Associate in Applied Science (AAS) - (61-81 Credits)**

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/plumbing-journeymen>

Description:

The Associate in Applied Science (AAS) in Construction Trades - Mechanical Trades: Plumbing degree is designed to provide apprentices and journeymen with a broadened educational background and leadership skills so that students completing the associate degree program may be better equipped to enter supervisory and managerial positions.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Students pursuing this degree must be graduates of a Registered Apprenticeship program in Option 1 (Plumbing) or Option 2 (Pipefitting) with journeyman status. The credits of core subject matter courses are awarded through a prior learning assessment application to the GateWay Apprenticeships Office. The courses are not offered outside of the Prior Learning Assessment (PLA) process.

Admission Criteria:

Registered apprentice status in the state of Arizona with a trade-specific sponsoring organization.

Program Prerequisites: None

Required Courses (24-54 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

+ BPC/CIS+++++ Any BPC Business-Personal Computers or CIS Computer Information Systems course(s) 3

Option 1: Plumbing

(20-40 credits) awarded through PLA process:

MEC105 Residential and Industrial Plumbing I (5)

MEC107 Residential and Industrial Plumbing II (5)

MEC108 Residential and Industrial Plumbing III (5)

MEC118 Residential and Industrial Plumbing IV (5)

MEC205 Residential and Industrial Plumbing V (5)

MEC207 Residential and Industrial Plumbing VI (5)

MEC208 Residential and Industrial Plumbing VII (5)

MEC218 Residential and Industrial Plumbing VIII (5)

Option 2: Pipefitting**(24-48 credits) awarded through PLA process:**

- IMC112 Introduction to Mechanical Trades Construction (6)
- IMC114 Overview of Mechanical Trades: Sheet Metal, Pipefitting, Plumbing (6)
- IMC122 Multiple Trades cross Training: Tubes, Fittings and Piping Systems (6)
- IMC124 Multiple Trades Cross Training: Standards (6)
- IMC235 Mechanical Trades Construction: Pipefitting Intermediate Principles and Concepts (6)
- IMC238 Mechanical Trades Construction: Pipefitting Advanced Principles and Concepts (6)
- IMC245 Mechanical Trades Construction: Pipefitting Advanced Skill Building (6)
- IMC248 Mechanical Trades Construction: Pipefitting Advanced Applications and Techniques (6)

Restricted Electives (0-15 Credits):

Students should choose zero (0) to fifteen (15) credits from the following list of courses to complete the minimum total program credits required for this degree based on their apprenticeship standing upon program enrollment and in consultation with Apprenticeship-Program Coordinator. Any 100-200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area.

- BPC+++++ Any BPC Business Personal Computers course(s)
- CAD+++++ Any CAD Computer Aided Drafting course(s)
- CNS+++++ Any CNS Construction course(s)
- ELC+++++ Any ELC Electronics course(s)
- EPS+++++ Any EPS Entrepreneurial Studies course(s)
- OSH+++++ Any OSH Occupational Safety and Health course(s)
- WLD+++++ Any WLD Welding Technology course(s)

General Education Requirement - Credits: 22-27**General Education Core - Credits: 12-17****First-Year Composition - Credits: 6**

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) OR
- + ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

- COM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) OR
- + COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent by assessment on District Placement Exam 0-3

Mathematics - Credits: 3-5

+ MAT120 Intermediate Algebra (5) OR

+ MAT121 Intermediate Algebra (4) OR

+ MAT122 Intermediate Algebra (3) OR

Equivalent course or satisfactory completion of a higher level mathematics course 3-5

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area. 4

MCCCD Governing Board Approval Date: June 28, 2022

Construction Trades - Mechanical Trades: Sheet Metal **3077 - Associate in Applied Science (AAS) - (61-81 Credits)**

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/sheet-metal-journeymen>

Description:

The Associate in Applied Science (AAS) in Construction Trades - Mechanical Trades: Sheet Metal program is designed to provide knowledge in the Sheet Metal trade which will enable the student to apply master skills as a sheet metal worker. Course work will include: safety, basic sheet metal principles, trade calculations, piping practices, blueprint reading, refrigeration fundamentals, mechanical systems and heat pumps. Students will be competent in fabrication, triangulation, gutters, downspouts, chimneys, insulation and moisture prevention. The Sheet Metal and Air Conditioning Contractors National Association's (SMACNA) manuals and standards will be supplemental materials used in the classroom. Additionally, students will examine factors involved in estimating labor and materials, equipment and delivery.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Students pursuing this degree must be graduates of a Registered Apprenticeship program in Sheet Metal with journeyman status. The credits of core subject matter courses are awarded through a Prior Learning Assessment (PLA) application to the GateWay Apprenticeships Office. The courses are not offered outside of the Prior Learning Assessment process.

Admission Criteria:

Admission Criteria: Admission to the program by the Apprenticeship Coordinator.

Program Prerequisites: None

Required Courses (28-54 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

+ BPC/CIS+++++ Any BPC/CIS Business-Personal Computers OR Computer Information Systems course(s) 3

Credits to be awarded through Prior Learning Assessment (PLA) process (24-48 credits):

IMC112 Introduction to Mechanical Trades Construction (6)

IMC114 Overview of Mechanical Trades: Sheet Metal, Pipefitting, Plumbing (6)

IMC122 Multiple Trades cross Training: Tubes, Fittings and Piping Systems (6)

IMC124 Multiple Trades Cross Training: Standards (6)

IMC233 Mechanical Trades Construction: Sheet Metal Intermediate

Principles and Concepts (6)

IMC237 Mechanical Trades Construction: Sheet Metal Advanced Principles and Concepts (6)

IMC243 Mechanical Trades Construction: Sheet Metal Advanced Skill Building (6)

IMC247 Mechanical Trades Construction: Sheet Metal Advanced Applications and Techniques (6)

Restricted Electives (0-12 Credits):

Students should choose zero (0) to twelve (12) credits from the following list of courses to complete the minimum total program credits required for this degree based on their apprenticeship standing upon program enrollment and in consultation with Apprenticeship-Program Coordinator. Any 100-200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area.

BLT+++++ Any BLT Building Safety and Construction technology course(s)

BPC+++++ Any BPC Business Personal Computers course(s)

CAD+++++ Any CAD Computer Aided Drafting course(s)

CNS+++++ Any CNS Construction course(s)

ELC+++++ Any ELC Electronics course(s)

EPS+++++ Any EPS Entrepreneurial Studies course(s)

GBS+++++ Any GBS General Business course(s)

MGT+++++ Any MGT Management course(s)

OSH+++++ Any OSH Occupational Safety and Health course(s)

SPA+++++ Any SPA Spanish course(s)

WLD+++++ Any WLD Welding Technology course(s)

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR

+ ENG107 First-Year Composition for ESL (3) AND

+ ENG102 First-Year Composition (3) OR

+ ENG108 First-Year Composition for ESL (3) OR

+ ENG111 Technical and Professional Writing (3)

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

+ COM230 Small Group Communication (3)

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent by Assessment on District Placement Exam

Mathematics - Credits: 3-5

+ MAT120 Intermediate Algebra (5) OR

+ MAT121 Intermediate Algebra (4) OR

+ MAT122 Intermediate Algebra (3) OR

Equivalent course or satisfactory completion of a higher level mathematics course

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities and Fine Arts area.

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social and Behavioral Sciences area.

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area.

MCCCD Governing Board Approval Date: June 28, 2022

Construction Trades: Carpentry

3424 - Associate in Applied Science (AAS) - (74-93 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/carpentry-journeymen>

Description:

The Associate in Applied Science (AAS) in Construction Trades: Carpentry program is designed to provide a well-rounded education to the journeyman carpenter/student that will enable the student to enter into supervision or management in the construction industry.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Program Accreditation/Certification or Licensure Information: Journeyman status through the Arizona Department of Economic Security, Apprenticeship Services Division, U.S. Department of Labor, Bureau of Apprenticeship and Training.

Admission Criteria:

Admission to the program by the following registered apprenticeship program: Southwest Carpenters Training Fund OR approved Prior Learning Assessment (PLA) application through GateWay Apprenticeships Office.

Program Prerequisites: None

Required Courses (52-55 Credits):

+ BPC/CIS+++++ Any BPC/CIS Business-Personal Computers OR
Computer Information Systems course(s) 3

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

Option 1:

Credits: 48-49

CCL earned through dual-enrollment option with Southwest Carpenters Training Fund: Certificate of Completion in Construction Trades: Carpentry (5395) 48-49

Option 2:

Credits: 48-49

Core classes/credit awarded through Prior Learning Assessment (PLA) process. PLA award is for the classes listed below, equaling 36 credit hours. The award is not given as a CCL, but rather toward the AAS degree. (Students must be degree seeking for PLA award, and meet criteria set forth by GateWay Apprenticeships Office and MCCCCD PLA policy guidelines.)

CRP101 Orientation - Carpenter Apprenticeship (3)
CRP102 Safety/Health Certifications for Carpentry (3)
CRP103 Tool and Equipment Applications (3)
CRP104 Basic Wall Framing (3)
CRP108 Moldings and Trim (3)
CRP113 Basic Roof Framing (3)
CRP121 Print Reading for Carpenters (3)
CRP123 Wall Forming (3)
CRP124 Foundations and Flatwork (3)
CRP131 Commercial Floor Framing (3)
CRP232 Stair and Ramp Forming (3)
CRP234 Transit Level/Laser (3)

Restricted Electives (0-11 Credits):

Students should choose 0-11 credits from the following list of courses to complete the minimum total program credits required for this degree. Any 100/200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area.

BLT+++++ Any BLT Building Safety and Construction technology course(s)
BPC+++++ Any BPC Business Personal Computers course(s)
CAD+++++ Any CAD Computer Aided Drafting course(s)
CNS+++++ Any CNS Construction course(s)
CRP+++++ Any CRP Carpentry: Apprenticeship course(s)
GBS+++++ Any GBS General Business course(s)
IND+++++ Any IND Industry course(s)
MGT+++++ Any MGT Management course(s)
OSH+++++ Any OSH Occupational Safety and Health course(s)
SPA+++++ Any SPA Spanish course(s)
TDR+++++ Any TDR Trade related course(s)
WLD+++++ Any WLD Welding Technology course(s)

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

Any approved general education course from the Oral Communication area except COM225 Public Speaking 3

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment 0-3

Mathematics - Credits: 3-5

+ MAT120 Intermediate Algebra (5) OR

+ MAT121 Intermediate Algebra (4) OR

+ MAT122 Intermediate Algebra (3) OR

Equivalent course or satisfactory completion of a higher-level mathematics course 3-5

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area. 4

MCCCD Governing Board Approval Date: May 23, 2023

Construction Trades: Electricity

3428 - Associate in Applied Science (AAS) - (71-79 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/electrical-journeymen>

Description:

The Associate in Applied Science (AAS) in Construction Trades: Electricity degree is designed to provide apprentices and journeymen with a broadened educational background and leadership skills so that students completing the associate degree program may be better equipped to enter supervisory and managerial positions.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Students must provide proof of completion of an accredited apprenticeship program and a journeyman card awarded in the state of Arizona. The journeyman card must be active and in good standing.

Admission Criteria:

Students are admitted to this program through the Registered Apprenticeship Sponsor selection process recorded in their apprenticeship standards filed with the State Apprenticeship Office or after an evaluation process by MCCCDC that demonstrates proof of completion of an accredited apprenticeship program and a journeyman card in the state of Arizona.

Credits for prior learning will be awarded for equivalent Electricity (ELA) prefix courses.

Program Prerequisites: None

Required Courses (49-51 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

Credits awarded through PLA application process (30-60 credits):

Specialization 1 (30-60 credits):

- + ELA111 Construction Electricity I 6
- + ELA112 Construction Electricity II 6
- + ELA113 Introduction to National Electrical Code 3
- + ELA123 Construction Electricity III 6
- + ELA124 Construction Electricity IV 6
- + ELA125 National Electric Code I 3
- + ELA235 Advanced Construction Electricity I 6
- + ELA236 Advanced Construction Electricity II 6
- + ELA238 National Electric Code II 3
- + ELA246 National Electric Code III 3

Specialization 2 (30-48 credits):

- + ABA112 Electrical I 6
- + ABA114 Electrical II 6
- + ABA122 Electrical III 6
- + ABA124 Electrical IV 6
- + ABA232 Electrical V 6
- + ABA234 Electrical VI 6
- + ABA242 Electrical VII 6
- + ABA244 Electrical VIII 6

General Education Requirement - Credits: 22-28**General Education Core - Credits: 12-18****First-Year Composition - Credits: 6**

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 6

Oral Communication - Credits: 3

- COM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) OR
- COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent by assessment on District Placement Exam. 0-3

Mathematics - Credits: 3-6

- + MAT120 Intermediate Algebra (5) OR
- + MAT121 Intermediate Algebra (4) OR
- + MAT122 Intermediate Algebra (3) OR
- MAT126 Intermediate Algebra with Review (6) OR
- Equivalent course or satisfactory completion of a higher level mathematics course. 3-6

General Education Distribution - Credits: 10**Humanities, Arts and Design - Credits: 3**

Any approved general education course from the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area. 4

MCCCD Governing Board Approval Date: June 28, 2022

Construction Trades: Heat and Frost Insulation

3009 - Associate in Applied Science (AAS) - (61-78 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/heat-and-frost-insulation-journeymen>

Description:

The Associate in Applied Science (AAS) in Construction Trades: Heat and Frost Insulation degree is designed to provide apprentices and journeymen with a broadened educational background and leadership skills so that students completing the associate degree program may be better equipped to enter supervisory managerial positions.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Students pursuing this degree must be graduates of a Registered Apprenticeship program in Heat and Frost Insulation with journeyman status. The 45 credits of core subject matter courses are awarded through a Prior Learning Assessment (PLA) application to the GateWay Apprenticeships Office. The courses are not offered outside of the Prior Learning Assessment process.

Admission Criteria:

Admission Criteria: Admission to the program by the Apprenticeship Coordinator.

Program Prerequisites: None

Required Courses (32-51 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

+ BPC/CIS+++++ Any BPC Business-Personal Computers OR
CIS Computer Information Systems 100/200 level course(s) 3

Credits awarded through the Prior Learning Assessment (PLA) process: 28-45 credits

HFA101 Introduction to Insulation 5

HFA102 Insulation Tools and Equipment: Use and Care 3

HFA110 Math for Heat and Frost Technology 5

HFA115 Fundamental Insulation Skills: Piping I 5

HFA150 Shop Fabrication: Layout and Pattern-making for Insulators I 5

HFA204 Scaffolding for Insulators 2

HFA215 Fundamental Insulation Skills: Piping II 5

HFA250 Shop Fabrication: Layout and Pattern-making for Insulators II 5

HFA260 Blueprints and Firestopping 5

HFA270 Supervision for Foreman 5

Restricted Electives (0-7 Credits):

Students should select from zero (0) to seven (7) credits from the following courses to complete the minimum total program credits required for this degree based on their apprenticeship standing upon program enrollment and in consultation with Apprenticeship- Program Coordinator. Any 100/200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area.

BLT+++++ Any BLT Building Safety and Construction technology course(s)

BPC+++++ Any BPC Business Personal Computers course(s)

CAD+++++ Any CAD Computer Aided Drafting course(s)

CNS+++++ Any CNS Construction course(s)

GBS+++++ Any GBS General Business course(s)

HFA+++++ Any HFA Heat and Frost Technology course(s)

IND+++++ Any IND Industry course(s)

MGT+++++ Any MGT Management course(s)

OSH+++++ Any OSH Occupational Safety and Health course(s)

SPA+++++ Any SPA Spanish course(s)

TDR+++++ Any TDR Trade related course(s)

WLD+++++ Any WLD Welding Technology course(s)

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) OR
- + ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

Any approved general education course from the Oral Communication area except COM225 Public Speaking.

Recommended courses are:

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

+ COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent by assessment on District Placement Exam. 0-3

Mathematics - Credits: 3-5

+ MAT120 Intermediate Algebra (5) OR

+ MAT121 Intermediate Algebra (4) OR

+ MAT122 Intermediate Algebra (3) OR

Equivalent course or satisfactory completion of a higher level mathematics course. 3-5

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area. 4

MCCCD Governing Board Approval Date: June 28, 2022

Construction Trades: Ironworking

3436 - Associate in Applied Science (AAS) - (61-83 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/ironworking-journeymen>

Description:

The Associate in Applied Science (AAS) in Construction Trades: Ironworking degree is designed to provide apprentices and journeymen with a broadened educational background and leadership skills so that students completing the associate degree program may be better equipped to enter supervisory managerial positions.

Program Notes:

Students must earn a grade of C or better for all courses within the program.

Students pursuing this degree must be graduates of a Registered Apprenticeship program in Ironworking with journeyman status. The 45 credits of core subject matter courses are awarded through a Prior Learning Assessment (PLA) application to the GateWay Apprenticeships Office. The courses are not offered outside of the prior learning assessment process.

Admission Criteria:

Admission Criteria: Admission to the program by the Apprenticeship Coordinator.

Program Prerequisites: None

Required Courses (29-56 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

+ BPC/CIS+++++ Any BPC Business-Personal Computers or CIS Computer Information Systems course(s) 3

(25-50) credits awarded through the Prior Learning Assessment (PLA) process:

CNS110 Green Construction Overview 0.5

IRW101 Ironworking: Orientation 3

IRW102 Safety and Health for Ironworking 3

IRW103 Science, Rigging, and Hoisting 6

IRW104 Ironworking: Blueprint Reading 1.5

IRW105 Ironworking III: History 3

IRW112 Lead Hazard Training 3

IRW120 Structural Steel Erection I 3

IRW121 Structural Steel Erection II 3

IRW122 Cranes 3

IRW130 Reinforcing: Rebar 3
IRW131 Reinforcing: Post Tensioning Monostrand 3
IRW142 Conveyors and Industrial Maintenance 3
IRW150 Rigging I 3
+ IRW151 Rigging II 3
IRW160 Architectural Ironworking I 3
+ IRW161 Architectural Ironworking II 3
IRW175 Precast Concrete, Metal Buildings, and Scaffolding 3
IND/PNT150 Construction Foreman 2
ABC/MEC/PNT120 Basic Calculations for Construction 1.5
WLD101 Introduction to Welding 3
+ WLD201 Advanced Welding Concepts 3
TDR/WLD202 Construction Welding III 3

Restricted Electives (0-10 Credits):

Students should choose 0-10 credits from the following list of courses to complete the minimum total program credits required for this degree. Any 100-200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area.

BLT+++++ Any BLT Building Safety and Construction Technology course(s)
BPC+++++ Any BPC Business-Personal Computers course(s)
CAD+++++ Any CAD Computer-Aided Drafting course(s)
CNS+++++ Any CNS Construction course(s)
GBS+++++ Any GBS General Business course(s)
IND+++++ Any IND Industry course(s)
IRW+++++ Any IRW Ironworking: Apprenticeship course(s)
MGT+++++ Any MGT Management course(s)
OSH+++++ Any OSH Occupational Safety and Health course(s)
SPA+++++ Any SPA Spanish course(s)
TDR+++++ Any TDR Trade Related course(s)
WLD+++++ Any WLD Welding Technology course(s)

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition -Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment 0-3

Mathematics - Credits: 3-5

+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) OR
Equivalent course OR Satisfactory completion of a higher level mathematics course 3-5

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities and Fine Arts area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social and Behavioral Sciences area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area. 4

MCCCD Governing Board Approval Date: June 28, 2022

Construction Trades: Millwrighting

3440 - Associate in Applied Science (AAS) - (60-88 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/millwright-journeymen>

Description:

The Associate in Applied Science (AAS) in Construction Trades: Millwrighting degree is designed to provide apprentices and journeymen with a broadened educational background and leadership skills so that students completing the associate degree program may be better equipped to enter supervisory and managerial positions.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Admission Criteria:

Registered apprentice status in the state of Arizona with a trade-specific sponsoring organization OR approved Prior Learning Assessment (PLA) application through GateWay Apprenticeships Office.

Program Prerequisites: None

Required Courses (20-42 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

+ BPC/CIS+++++ Any BPC Business-Personal Computers OR

CIS Computer Information Systems course(s) 3

Option 1: 16-36 Credits

CCL earned through simultaneous enrollment option with Southwest Carpenters Training Fund.

Students should select from sixteen (16) to thirty-six (36) credits from the following courses based on their apprenticeship standing upon program enrollment and in consultation with the Apprenticeship Program Coordinator.

+ MWR101 Introduction to Millwrighting 2

+ MWR102 Millwrighting Safety and Health Certifications 2

+ MWR103 Machinery Installation and Erection I 2

+ MWR104 Machinery Installation and Erection II 2

+ MWR105 Millwrighting General Skills 2

+ MWR107 Drives, Pulleys and Belts 2

+ MWR108 Reading Mechanical Prints 2

+ MWR109 Turbine Familiarization 2

- + MWR110 Cutting and Burning 2
- + MWR111 Tools and Equipment Applications 2
- + MWR201 Shaft Alignment I 2
- + MWR202 Conveyor Systems 2
- + MWR205 Shaft Alignment II 2
- + MWR206 Rigging Hardware and Procedures 2
- + MWR208 Compressor Theory and Maintenance 2
- + MWR210 Solar Installer 2
- + WLD215AA Weld Fabrication I for Millwrighting 2
- + WLD215AB Weld Fabrication II for Millwrighting 2

Option 2: 16-36 Credits

Core courses/credit awarded through prior learning assessment (PLA) process. PLA award is for the courses listed below, equalling 36 credit hours. The award is not given as a CCL, but rather toward the AAS degree. (Students must be degree seeking for PLA award, and meet criteria set forth by GateWay Apprenticeships Office and MCCCPLA policy guidelines.)

- MWR101 Introduction to Millwrighting 2
- MWR102 Millwrighting Safety and Health Certifications 2
- MWR103 Machinery Installation and Erection I 2
- MWR104 Machinery Installation and Erection II 2
- MWR105 Millwrighting General Skills 2
- MWR107 Drives, Pulleys and Belts 2
- MWR108 Reading Mechanical Prints 2
- MWR109 Turbine Familiarization 2
- MWR110 Cutting and Burning 2
- MWR111 Tools and Equipment Applications 2
- MWR201 Shaft Alignment I 2
- MWR202 Conveyor Systems 2
- MWR205 Shaft Alignment II 2
- MWR206 Rigging Hardware and Procedures 2
- MWR208 Compressor Theory and Maintenance 2
- MWR210 Solar Installer 2
- WLD215AA Weld Fabrication I for Millwrighting 2
- WLD215AB Weld Fabrication II for Millwrighting 2

Restricted Electives (0-19 Credits):

Students should choose zero (0) to nineteen (19) credits from the following list of courses to complete the minimum total program credits required for this degree based on their apprenticeship standing upon program enrollment and in consultation with Apprenticeship- Program Coordinator. Any 100-200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area.

- BLT+++++ Any BLT Building Safety and Construction Technology course(s)
- BPC+++++ Any BPC Business Personal Computers course(s)
- CAD+++++ Any CAD Computer Aided Drafting course(s)

CNS+++++ Any CNS Construction course(s)
GBS+++++ Any GBS General Business course(s)
IND+++++ Any IND Industry course(s)
MGT+++++ Any MGT Management course(s)
MWR+++++ Any MWR Millwright: Apprenticeship course(s)
OSH+++++ Any OSH Occupational Safety and Health course(s)
SPA+++++ Any SPA Spanish course(s)
TDR+++++ Any TDR Trade Related course(s)
WLD+++++ Any WLD Welding Technology course(s)

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent by assessment on District Placement Exam. 0-3

Mathematics - Credits: 3-5

+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) OR
Equivalent course or satisfactory completion of a higher level mathematics course. 3-5

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities and Fine Arts area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social and Behavioral Sciences area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area. 4

MCCCD Governing Board Approval Date: May 23, 2023

Construction Trades: Painting and Drywalling

3444 - Associate in Applied Science (AAS) - (61-63 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/paint-and-drywall-journeymen>

Description:

The Associate in Applied Science (AAS) in Construction Trades: Painting and Drywalling degree is designed to provide apprentices and journeymen with a broadened educational background and leadership skills so that students completing the associate degree program may be better equipped to enter supervisory and managerial positions.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Students pursuing this degree must be graduates of a Registered Apprenticeship program in Painting and Drywalling with journeyman status. The credits of core subject matter courses are awarded through a Prior Learning Assessment (PLA) application to the GateWay Apprenticeships Office. The courses are not offered outside of the prior learning assessment process.

Admission Criteria:

Admission to the program by the Apprenticeship Coordinator.

Program Prerequisites: None

Required Courses (20-36.5 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

BPC/CIS+++++ Any BPC Business-Personal Computers or CIS Computer Information Systems course
3

Credits awarded through PLA application process. Journeyman status should align to one of two specializations:

Students need to complete sixteen (16) to thirty and one-half (30.5) credits from the courses below based on their apprenticeship standing upon program enrollment and in consultation with the Apprenticeship Program Coordinator.

Specialization 1: Painter-Decorator

(16-30.5 credits) awarded through PLA process:

ABC120 Basic Calculations for Construction 1.5

ABC/MEC121 Introduction to Hand and Power Tools 1

BPC100AB Business-Personal Computers II 0.5

IND150 Construction Foreman 2

PNT123 Introduction to Blueprints 1

GTC/MIT/OSH106 Industrial Safety 2
PNT105 Painting and Drywalling Orientation 1
ABC/PNT118 OSHA Standards and Regulations 1.5
PNT101 Introduction to Painting-Decorating Trade 4
PNT102 Surface Preparation and Cleaning 4
PNT104 Wood and Decorative Finishes 2
PNT201 Coverings and Blasting 2
PNT202 Spray Painting 3
PNT203 Non-spray Application of Coatings 3
PNT205 Paints, Coatings, and Materials 2

Students need to complete sixteen (16) to thirty and one-half (30.5) credits from the courses below based on their apprenticeship standing upon program enrollment and in consultation with the Apprenticeship Program Coordinator.

Specialization 2: Drywalling

(16-30.5 credits) awarded through PLA process:

ABC120 Basic Calculations for Construction 1.5
ABC/MEC121 Introduction to Hand and Power Tools 1
BPC100AB Business-Personal Computers II 0.5
IND150 Construction Foreman 2
PNT123 Introduction to Blueprints 1
GTC/MIT/OSH106 Industrial Safety 2
PNT105 Painting and Drywalling Orientation 1
PNT106 Health and Safety for Drywall Finishers 3
PNT107 Introduction to the Drywall Trade 2
PNT108 Materials of the Drywall Trade 2
PNT109 Tools of the Drywall Trade 2
PNT208 Filling, Taping, and Sanding Applications 4
PNT209 Automatic Taping Tools of the Drywall Trade 3
PNT210 Advanced Drywall Applications and Systems 3

Restricted Electives (6-19 Credits):

Students should choose six (6) to nineteen (19) credits from the following list of courses to complete the minimum total program credits required for this degree based on their apprenticeship standing upon program enrollment and in consultation with Apprenticeship- Program Coordinator. Any 100-200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area

BLT+++++ Any BLT Building Safety and Construction technology course(s)
BPC+++++ Any BPC Business Personal Computers course(s)
CAD+++++ Any CAD Computer Aided Drafting course(s)
CNS+++++ Any CNS Construction course(s)
GBS+++++ Any GBS General Business course(s)
PNT+++++ Any PNT Painting and Drywalling course(s)
IND+++++ Any IND Industry course(s)
MGT+++++ Any MGT Management course(s)

OSH+++++ Any OSH Occupational Safety and Health course(s)

SPA+++++ Any SPA Spanish course(s)

TDR+++++ Any TDR Trade related course(s)

WLD+++++ Any WLD Welding Technology course(s)

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR

+ ENG107 First-Year Composition for ESL (3) AND

+ ENG102 First-Year Composition (3) OR

+ ENG108 First-Year Composition for ESL (3) OR

+ ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

+ COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent by assessment on District Placement Exam. 0-3

Mathematics - Credits: 3-5

+ MAT120 Intermediate Algebra (5) OR

+ MAT121 Intermediate Algebra (4) OR

+ MAT122 Intermediate Algebra (3) OR

Equivalent course or satisfactory completion of a higher level mathematics course. 3-5

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities and Fine Arts area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social and Behavioral Sciences area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area. 4

MCCCD Governing Board Approval Date: June 28, 2022

Cybersecurity

3197 - Associate in Applied Science (AAS) - (62-77 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/cybersecurity-3197-aas>

Description:

The Associate in Applied Science (AAS) in Cybersecurity is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security technologies and structured languages. The Cybersecurity program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. Certificates of Completion (CCLs) are also available in the following areas: Cybersecurity Fundamentals, Cyber Operations, Linux System Administration, Microsoft, Cisco Networking CCNA Security, Cyber Engineering, and Critical Infrastructure.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces:

AAS/3097 Information Technology: Network and Cyber Security

AAS/3160 IT and Power Systems Security

Program Prerequisites: None

Required Courses (25-31 Credits):

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR

MST150++ Any Microsoft Windows course (3) 3

(MST150++ required for Cloud System Administration specialization and Critical Infrastructure specialization)

CIS105 Survey of Computer Information Systems 3

CIS111 Ethics in Information Technology (3) OR

ITS120 Legal, Ethical and Regulatory Issues (3) 3

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) 3

- + CIS156 Python Programming: Level I 3
- + CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
(CNT140AB required for Cisco Network Administration and Security specialization and Critical Infrastructure specialization)
- + CIS271DB Information Security Essentials (3) AND
+ CIS272DB Information Security Principles (3) OR
+ CIS270 Essentials of Network and Information Security (3) OR
+ ITS110 Information Security Fundamentals (3) 3-6
(ITS110 required for Cyber Operations specialization; CIS271DB AND CIS272DB required for Critical Infrastructure specialization)
- FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
- + ITS240 Ethical Hacking and Network Defense 3

Restricted Electives (12-18 Credits):

Students must complete 12-18 credits from the following list of courses. Courses that are required for a specialization in Cyber Operations, Linux System Administration, Cloud System Administration, Cisco Network Administration and Security, Cyber Engineering, and/or Critical Infrastructure are noted. Courses cannot be repeated for credit.

Specialization I: Cyber Operations

Credits: 17

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

- + CIS238DL Linux System Administration (3) OR
+ CIS238RH Red Hat System Administration II (3) 3
- + CIS290AC Computer Information Systems Internship (3) OR
+ CIS298AC Special Projects (3) 3
- + ITS291 Computer Forensics Foundations 4
+ ITS292 Advanced Computer Forensics 4

Specialization II: Linux System Administration

Credits: 15

- + CIS238DL Linux System Administration (3) OR
+ CIS238RH Red Hat System Administration II (3) 3
- + CIS239DL Linux Shell Scripting 3
- + CIS240DL Linux Network Administration (3) OR
+ CIS240RH Red Hat System Administration III (3) 3
- + CIS271DL Linux Security (3) OR

+ CIS271RH Red Hat System Administration IV (3) 3

+ CIS275DL Linux Capstone 3

Specialization III: Cloud System Administration

Credits: 15-16

+ BPC274 Advanced Server Computer Maintenance: Server+ Prep 3

CIS121AH Microsoft PowerShell/Command Line Operations 3

+ CIS239DL Linux Shell Scripting 3

+ MST160 Azure Administrator (4), OR

+ CLD110 Amazon Web Services Cloud Foundations (3) 3-4

+ MST260 Microsoft Azure Cloud Development and Operations (3), OR

+ CLD120 Amazon Web Services Cloud Architect Associate (3) 3

Specialization IV: Cisco Network Administration and Security

Credits: 12

+ CNT150AB Switching, Routing, and Wireless Essentials 4

+ CNT160AB Enterprise Networking, Security, and Automation 4

+ CNT202 Cisco Secure Firewall Appliance Configuration (4) OR

+ CNT205 Cisco Certified Network Associate Security (4) 4

Specialization V: Cyber Engineering

Credits: 18

+ CIS119DO Introduction to Oracle: SQL (3) OR

+ CIS276++ Any SQL Database course (3) 3

+ CIS162++ Any C Programming: Level I course 3

(Students intending to transfer to U of A South should take CIS162 C Programming)

+ CIS227 Assembler Language 3

+ CIS238DL Linux System Administration (3) OR

+ CIS238RH Red Hat System Administration II (3) 3

+ CIS250 Management of Information Systems 3

+ CIS262++ Any C Programming: Level II course 3

Specialization VI: Critical Infrastructure

Credits: 16

+ CIS143 Introduction to Critical Infrastructure Protection 3

+ CIS201 Introduction to Operational Technology 3

+ CIS202 Introduction to Smart Grid Security 3

+ CIS203 Principles of the Risk Management Framework 3

+ CNT150AB Switching, Routing, and Wireless Essentials 4

General Electives (0-3 Credits):

Select additional courses 100-level or higher to complete the minimum total program credits required for this degree. It is recommended to select from the Restricted Elective options. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 6

Oral Communication - Credits: 3

- COM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) OR
- + COM225 Public Speaking (3) OR
- COM230 Small Group Communication (3) 3

COM100 required for students intending to transfer to ASU West to earn a Bachelor of Science in Applied Computing (Cybersecurity).

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by assessment (0) 0-3

Mathematics - Credits: 3-6

Any approved general education course in the Mathematics area. 3-6

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course(s) in the Humanities, Arts and Design area.

Social-Behavioral Sciences - Credits: 3

Any approved general education course(s) in the Social-Behavioral Sciences area.

Natural Sciences - Credits: 4

Any approved general education course(s) from the Natural Sciences area.

MCCCD Governing Board Approval Date: June 28, 2022

Diagnostic Medical Sonography

3656 - Associate in Applied Science (AAS) - (89-102 Credits)

Field of Interest: **Health Sciences**

For Information: Bryan Dodd

Phone: 602-286-8486

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/diagnostic-medical-sonography-3656-aas>

Description:

The Associate in Applied Science (AAS) in Diagnostic Medical Sonography (DMS) program is designed for students who wish to explore the field of sonography, as well as those who have made a career decision to seek certification from the American Registry of Diagnostic Medical Sonographers (ARDMS). Diagnostic medical sonographers are highly specialized members of the health care team who provide patient services using ultrasound under the direction of a physician. Sonographers provide care essential to diagnostic ultrasound imaging by operating equipment and performing examinations for medical diagnosis. Sonographers have an in-depth knowledge of physics, disease processes, physiology, cross-sectional anatomy, positioning and sonographic techniques necessary to create ultrasound images. Knowledge of darkroom techniques, equipment maintenance, record keeping, and film processing are also part of the job.

Careers in the field of diagnostic sonography can be found in hospitals, clinics, doctors' offices, and mobile imaging centers. Research, applications, teaching, and marketing may be available to sonographers who wish to explore careers in business or industry.

Educational information: Clinical affiliations include a cooperative effort with a number of area hospitals, clinics, and doctors' offices. Clinical training is required by the ARDMS prior to sitting for the registry examination. This program will prepare students for the American Registry of Diagnostic Medical Sonographer examinations in abdomen, obstetrics, and vascular technology.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Students must complete the following general education and introductory courses with a 3.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum. BIO160 or (BIO201 and BIO202); ENG101 or ENG107, MAT150 or MAT151 or MAT152 or MAT155 or MAT156; and (PHY101 or PHY111).

Due to the requirements of the program accrediting body, this course of study requires many hours of classroom and clinical time. Full-time day students must submit application materials and be accepted prior to registering for the courses in the core curriculum. The full-time program is 22 months in length.

Admission Criteria:

1. Formal application and admission to the program.
2. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check

Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy and drug testing protocols.

3. Clinical health and safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.
5. There are limited spaces available in the DMS program. Only students who have completed all of the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

Program Prerequisites: None

Required Courses (63 Credits):

- + DMI/DMS/ICE220 Sectional Anatomy 3
- + DMS110 Introduction to Diagnostic Sonography 3
- + DMS120 Ultrasound Imaging: Abdominal Procedures I 3
- + DMS120LL Ultrasound Imaging: Abdominal Procedures I Laboratory 1
- + DMS121 Ultrasound Imaging: Abdominal Procedures II 3
- + DMS130 Ultrasound Imaging: OB/GYN Procedures 3
- + DMS130LL Ultrasound Imaging: OB/GYN Procedures Laboratory 1
- + DMS140 Ultrasound Case Studies: Part I 2
- + DMS150 Sonographic Principles and Instrumentation I 3
- + DMS150LL Sonographic Principles and Instrumentation Laboratory 1
- + DMS155 Introduction to Clinical Care for Sonography 1
- + DMS161 Clinical Practicum II-AA 2
- + DMS162 Clinical Practicum II-AB 2
- + DMS171 Clinical Practicum III-AA 2
- + DMS172 Clinical Practicum III-AB 2
- + DMS210 Concepts of Vascular Imaging 2
- + DMS210LL Concepts of Vascular Imaging Laboratory 1
- + DMS225 High Risk Obstetric/Gynecology Sonography 1
- + DMS240 Ultrasound Case Studies: Part II 2
- + DMS241 Ultrasound Case Studies: Part III 2
- + DMS255 Pediatric Sonography 3
- + DMS261 Clinical Practicum IV-AA 2
- + DMS262 Clinical Practicum IV-AB 2
- + DMS263 Vascular Clinical Practicum I 2
- + DMS270 Clinical Practicum V-AA 2
- + DMS271 Clinical Practicum V-AB 2
- + DMS272 Clinical Practicum V-AC 2
- + DMS281 Ultrasound Registry Preparation Seminar: Physics and Instrumentation 1
- + DMS282 Ultrasound Registry Preparation Seminar: Abdominal and Small Parts Imaging 1
- + DMS283 Ultrasound Registry Preparation Seminar: Obstetrics and Gynecology 1
- + DMS284 Ultrasound Registry Preparation: Vascular Imaging 1
- + DMS286 Advanced Vascular Technology 2

- + DMS286LL Advanced Vascular Technology Laboratory 1
- + RES118 Vascular Access for Clinical Practice 1

Restricted Electives (0-3 Credits):

Optional: Students seeking a specialty area in sonography may select zero (0) to three (3) credits from courses below.

- + DMS235 Ultrasound Breast Imaging 1
- + DMS250 Musculoskeletal Sonography and Small Parts 2

General Education Requirement - Credits: 26-36

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 3

Oral Communication - Credits: 3

Any approved general education course from the Oral Communication area 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by assessment 0-3

Mathematics - Credits: 3-6

- + MAT150 College Algebra/Functions (5) OR
- + MAT151 College Algebra/Functions (4) OR
- + MAT152 College Algebra/Functions (3) OR
- + MAT155 College Algebra/Functions with Review (5) OR
- + MAT156 College Algebra/Functions with Review (6) OR

Any approved general education course in the Mathematical Applications [MA] area for which MAT15+ is a prerequisite (3-6) 3-6

General Education Distribution - Credits: 14-18

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area 3

Natural Sciences - Credits: 8-12

- BIO160 Introduction to Human Anatomy and Physiology (4) OR
- + BIO201 Human Anatomy and Physiology I (4) AND
- + BIO202 Human Anatomy and Physiology II (4) 4-8

- + PHY101 Introduction to Physics (4) OR
- + PHY111 General Physics I (4) 4

MCCCD Governing Board Approval Date: October 25, 2022

Electroneurodiagnostic (END) Technology

3136 - Associate in Applied Science (AAS) - (62.5-83.5 Credits)

Field of Interest: **Health Sciences**

For Information: Baljeet Gill

Email: baljeet.gill@gatewaycc.edu

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/electroneurodiagnostic-end-technology-3136-aas>

Description:

The Associate in Applied Science (AAS) in Electroneurodiagnostic (END) Technology is designed to prepare students to use electroneurodiagnostic techniques to evaluate activity of the brain, spinal cord and nervous system to perform electroencephalograms (EEGs), evoked potentials (EPs), and nerve conduction velocity studies (NCVs) in hospitals and other healthcare facilities. The program focuses on the general area of biomedical electronics with specific instruction in the theory and use of END instruments and factors influencing testing outcomes and reporting. Upon successful completion of the program, the student will be prepared to sit for the American Board of Registered Electroneurodiagnostic Technologists (ABRET) examination to become a Registered Electroneurodiagnostic Technologist (R. EEG T.).

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Students may opt to transfer from the Electroneurodiagnostic (END) Technology to the Polysomnography program while in the first semester of the program. A seat in the Polysomnography program will be granted if there is no waitlist and Program Director approval is granted at the time of transfer.

HCC courses may be taken prior to admission or concurrently during enrollment in the program.

Admission Criteria:

1. Formal application can be made at any time.
2. Formal admission to the Electroneurodiagnostic (END) Technology or the Polysomnography program is required.
3. Background Check Requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC background check policy.
4. Clinical Health and Safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC clinical health and safety policy.
5. Inability to comply with Background Check requirements and/or Clinical Health and Safety requirements at the start of classes may result in cancellation of enrollment.

Program Prerequisites (12.5-28.5 Credits):

BIO160 Introduction to Human Anatomy and Physiology (4) OR

- + BIO201 Human Anatomy and Physiology I (4) AND
- + BIO202 Human Anatomy and Physiology II (4) 4-8

Students selecting BIO201 must complete the prerequisite courses BIO156 or BIO181.

- + BIO156 Introductory Biology for Allied Health (4) OR
- + BIO181 General Biology (Majors) I (4) OR

One year of high school biology with a grade of C or better (0) 0-4

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) 3

- + MAT120 Intermediate Algebra (5) OR
- + MAT121 Intermediate Algebra (4) OR
- + MAT122 Intermediate Algebra (3) OR

Equivalent course OR satisfactory completion of a higher level mathematics course. 3-6

HCC/RES109 CPR for Health Care Provider (0.5) OR
Proof of Current Health Care Provider CPR Certification (0) 0-0.5

HCC130 Fundamentals in Health Care Delivery (3)
OR

HCC130AA Health Care Today (0.5) AND
HCC130AB Workplace Behaviors in Health Care (0.5) AND
HCC130AC Personal Wellness and Safety (0.5) AND
HCC130AD Communication and Teamwork in Health Care Organizations (0.5) AND
HCC130AE Legal Issues in Health Care (0.5) AND
HCC130AF Decision Making in the Health Care Setting (0.5)

OR

Work experience or equivalent course education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-3

HCC145 Medical Terminology for Health Care Professionals (3) OR
HCC146 Common Medical Terminology for Health Care Professionals (2) 2-3

+ HCC164 Pharmacology for Allied Health 0.5

+ HCC200 Basic Client Care for Allied Health (0.5) OR
Work experience or equivalent course education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-0.5

Required Courses (38-40 Credits):

- + EEG115 Biomedical Electronic Technology I 2
- + EEG116 Biomedical Electronic Technology II 3
- + EEG130 Introduction to EEG 4
- + EEG140 Basic Electroneurodiagnostic Skills 1
- + EEG140LL Basic Electroneurodiagnostic Skills Laboratory 1
- + EEG200 Clinical Rotation I 3
- + EEG201 Intermediate EEG 3

- + EEG201LL Intermediate EEG Laboratory 1
- + EEG205 Applied Evoked Potentials and Nerve Conduction Studies 1
- + EEG205LL Applied Evoked Potentials and Nerve Conduction Studies Laboratory 1
- + EEG206 Advanced EEG 1
- + EEG206LL Advanced EEG Laboratory 1
- + EEG207 Electroneurodiagnostic Record Review 4
- + EEG210 Applied Neurophysiology 3
- + EEG211 Clinical Rotation II 3
- + EEG220 Clinical Rotation III 3
- + EEG282AA Volunteerism for Electroneurodiagnostic Technology: Service Learning Experience 1

FYE101 Introduction to College, Career and Personal Success (1) OR
 FYE103 Exploration of College, Career and Personal Success (3) 1-3

HRC101 Overview of Healthcare Compliance 1

General Education Requirement - Credits: 12-15

General Education Core - Credits: 6-9

First-Year Composition - Credits: 3

Three (3) credits of First Year Composition are met by ENG101 or ENG107 in Program Prerequisites area.

- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) OR
- + ENG111 Technical and Professional Writing (3) 3

Oral Communication - Credits: 3

Any approved general education course from the Oral Communication area 3

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR
 Equivalent as indicated by assessment (0) 0-3

Mathematics - Credits: 0

Met by MAT120 or MAT121 or MAT122 or equivalent course or higher level mathematics course in Program Prerequisites area.

General Education Distribution - Credits: 6

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

PSY101 Introduction to Psychology 3

Natural Sciences - Credits: 0

Met by BIO160 or BIO201 and BIO202 in Program Prerequisite area.

MCCCD Governing Board Approval Date: June 28, 2022

Environmental Science and Water Resources Technologies

3830 - Associate in Applied Science (AAS) - (62-83 Credits)

Field of Interest: **Applied Technology**

For Information: Craig Urbanski

Phone: 602-286-8616

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/environmental-science-and-water-resources-technologies-3830-aas>

Description:

The Associate in Applied Science (AAS) in Environmental Science and Water Resources Technologies program is designed to prepare students in theoretical and practical hands-on training in the monitoring of water quality and quantity as well as in water, wastewater, and industrial wastewater treatment. The emphasis is on federal, state, county, and city regulations affecting water quality and quantity management in addition to water/wastewater treatment. The students take part in the operation, calibration, and maintenance of water monitoring field instruments and water and wastewater treatment monitor field equipment. The program assists students in their preparation for ADEQ examinations in both water and wastewater treatment.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Admission Criteria:

Formal application and admission to the program is required. Placement into MAT120, MAT121, MAT122, MAT150, MAT151, MAT152 or higher level mathematics course for which College Algebra is a prerequisite.

Program Prerequisites: None

Required Courses (40-50 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

Students must select one (1) of two (2) specializations:

Specialization I: Environmental Science Technology - Credits: 39

BIO105 Environmental Biology 4

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3

+ WRT100 Introduction to Water Resources 3

+ WRT108 Fundamentals of Environmental Science Technology 3

+ WRT117 Geographic Information Systems (GIS) 3

+ WRT125 Surveying for Water Resources 2

+ WRT130 Groundwater Hydrology 3

- + WRT150 Introduction to Surface Water Data Collection 3
- + WRT152 Water Resources Field Investigations I: Groundwater and Surface Water 3
- + WRT153 Environmental Law and Regulations 3
- + WRT180 Environmental Sampling and Analysis 5
- WRT190AA Water Resources Technologies Seminar 1
- + WRT252 Water Resources Field Investigations II: Surveying and Surface Water 3

Specialization II: Water and Wastewater Treatment - Credits: 47

BIO105 Environmental Biology 4

BPC110 Computer Usage and Applications (3) OR
 CIS105 Survey of Computer Information Systems (3) 3

- + WRT100 Introduction to Water Resources 3
- + WRT110 Principles of Water Treatment Plant Operations 3
- + WRT115 Water Technology Calculations 3
- + WRT121 Operation of Wastewater Treatment Plants 3
- + WRT131 Wastewater Collection Systems Operation and Maintenance 3
- + WRT134 Water Distribution System Operation and Maintenance 3
- + WRT140 Water Quality for Treatment Industry 5
- + WRT153 Environmental Law and Regulations 3
- WRT190AA Water Resources Technologies Seminar 1
- + WRT200 Industrial Pretreatment 3
- + WRT204 Water/Wastewater Mechanical Systems, Power, and Instrumentation 3
- + WRT221 Water and Wastewater Treatment Plants Administration 3
- + WRT240 Water Quality 3
- + WRT240LL Water Quality Field Techniques 1

Restricted Electives (0-6 Credits):

Students preparing to enhance their skill set in the water industry may complete zero (0) to six (6) credits with permission of the Water Resources Program Director. Credits: 0-6

WRT+++++ Any WRT Water Resource Technology course(s)

Students may select only ONE of the three internship courses below for a restricted elective. Internship courses may not be taken more than once.

- + WRT270AA Water Resources Internship (1) OR
- + WRT270AB Water Resources Internship (2) OR
- + WRT270AC Water Resources Internship (3) 1-3

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR

- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) OR
- + ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

Any approved general education course in the Oral Communication area.

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent by Assessment 0-3

Mathematics - Credits: 3-5

- + MAT120 Intermediate Algebra (5) OR
- + MAT121 Intermediate Algebra (4) OR
- + MAT122 Intermediate Algebra (3) OR
- + MAT150 College Algebra/Functions (5) OR
- + MAT151 College Algebra/Functions (4) OR
- + MAT152 College Algebra/Functions (3) OR

Satisfactory completion of a higher level mathematics course for which College Algebra is a prerequisite 3-5

For students intending to transfer to a university, MAT15+ is recommended.

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences - Credits: 4

- + CHM130 Fundamental Chemistry (3) AND
- + CHM130LL Fundamental Chemistry Laboratory (1) OR

- + CHM130AA Fundamental Chemistry with Lab (4) OR

- GLG110 Geological Disasters and the Environment (3) AND
- GLG111 Geological Disasters and the Environment Lab (1) 4

MCCCD Governing Board Approval Date: May 23, 2023

General Business

3148 - Associate in Applied Science (AAS) - (62-69 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/general-business-3148-aas>

Description:

The Associate in Applied Science (AAS) in General Business program is designed to meet the needs of students who wish a broad overview of business and desire not to enroll in a specialized curriculum in business. The program is designed to acquaint students with major subject areas of business, to improve the student's business vocabulary, and to provide students with an understanding of influencing factors in business decision making and activities. In addition, this program may aid a student in recognizing a specific business field to be pursued in future studies. A Certificate of Completion (CCL) in General Business is available.

Program Notes:

Students must earn a grade of C or better in all courses in the program.

This program replaces: AAS/3051 General Business Specialized

Program Prerequisites: None

Required Courses (22-24 Credits):

ACC111 Accounting Principles I 3

CIS105 Survey of Computer Information Systems 3

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

GBS120 Workplace Communication Skills (3) OR

+ GBS233 Business Communication (3) 3

GBS151 Introduction to Business 3

GBS205 Legal, Ethical and Regulatory Issues in Business 3

MGT175 Business Organization and Management (3) OR

MGT251 Human Relations in Business (3) 3

MKT271 Principles of Marketing 3

Restricted Electives (18 Credits):

Students should select 18 credits from the following courses/subjects. Any 100/200 level courses in the following subjects can be used, except courses used to satisfy the Required Courses area.

ACC+++ Any ACC Accounting course(s)

CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development Level I 3
EPS+++ Any EPS Entrepreneurial Studies course(s)
GBS+++ Any GBS General Business course(s)
IBS+++ Any IBS International Business course(s)
MGT+++ Any MGT Management course(s)
MKT+++ Any MKT Marketing course(s)
REA+++ Any REA Real Estate course(s)
SBS+++ Any SBS Small Business Management course(s)
TQM+++ Any TQM Total Quality Management course(s)

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3)

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3)
COM110 Interpersonal Communication (3)
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent by assessment 0-3

Mathematics - Credits: 3-5

Any approved general education course from the Mathematics area.

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course in the Humanities, Arts and Design area.

Social-Behavioral Sciences - Credits: 3

ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3) 3

Natural Sciences - Credits: 4

Any approved general education course in the Natural Sciences area.

MCCCD Governing Board Approval Date: June 28, 2022

Health Services Management

3336 - Associate in Applied Science (AAS) - (66-94.5 Credits)

Field of Interest: **Health Sciences**

For Information: Ahmad Pardazi

Phone: 480-620-0681

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/health-services-management-3336-aas>

Description:

The Associate in Applied Science (AAS) in Health Services Management program prepares students to become supervisors and managers in all types of varied health care settings. Classroom experiences focus on the development of skills to be an effective leader and planner, capable of directing, coaching and developing motivated employees and employee teams. This is a program for current supervisors and managers who would like to enhance their skills as well as other employees currently working in a health care discipline who would like to take on more responsibilities. It is also appropriate for individuals planning to enter healthcare fields who may wish to be candidates for promotional opportunities.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

HCC courses may be taken prior to admission or concurrently during enrollment in the program.

Program Prerequisites: None

Required Courses (44-66.5 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

Two (2) options are available for students to enter the Health Services Management Program.

Option I: For entry level students with no prior healthcare experience.

Option II: For students who have completed the Certificate of Completion (CCL) Health Unit Coordinator/Patient Care Associate (5307).

Option I

Credits: 43-49

ACC111 Accounting Principles I 3

CIS105 Survey of Computer Information Systems 3

CSM/TQM101 Quality Customer Service 3

+ GBS233 Business Communication 3

HCC130 Fundamentals in Health Care Delivery (3)

OR

HCC130AA Health Care Today (0.5) AND

HCC130AB Workplace Behaviors in Health Care (0.5) AND

HCC130AC Personal Wellness and Safety (0.5) AND
HCC130AD Communication and Teamwork in Health Care Organizations (0.5) AND
HCC130AE Legal Issues in Health Care (0.5) AND
HCC130AF Decision making in the Health Care Setting (0.5)

OR

Work experience or equivalent course education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-3

HCC145 Medical Terminology for Health Care Professionals (3) OR
Work experience or equivalent course education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-3

HRC101 Overview of Healthcare Compliance 1
HRC228 Healthcare Industry Regulation 3
HRC230 Healthcare Corporate Compliance Program Design 3
HRC232 Health Care Regulatory Compliance Program Design 3
HRC234 Health Care Regulatory Enforcement Case Studies 3
HSM122 Health Services Supervision 3
HSM125 Current Issues in Health Services Management 3
HSM222 Health Services Management 3
HSM226 Ethics and Legalities of Health Services Management 3
HSM230 Healthcare Strategic Planning and Deployment 3
MGT276 Human Resources Management 3

Option II

Credits: 59.5-63.5

Certificate of Completion (CCL) in Health Unit Coordinator/Patient Care Associate (5307) 16.5-20.5

ACC111 Accounting Principles I 3
CIS105 Survey of Computer Information Systems 3
CSM/TQM101 Quality Customer Service 3
+ GBS233 Business Communication 3
HRC101 Overview of Healthcare Compliance 1
HRC228 Healthcare Industry Regulation 3
HRC230 Healthcare Corporate Compliance Program Design 3
HRC232 Health Care Regulatory Compliance Program Design 3
HRC234 Health Care Regulatory Enforcement Case Studies 3
HSM122 Health Services Supervision 3
HSM125 Current Issues in Health Services Management 3
HSM222 Health Services Management 3
HSM226 Ethics and Legalities of Health Services Management 3
HSM230 Healthcare Strategic Planning and Deployment 3
MGT276 Human Resources Management 3

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 6

Oral Communication - Credits: 3

- COM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) OR
- COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by assessment (0) 0-3

Mathematics - Credits: 3-6

Any approved general education course from the Mathematics area. 3-6

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area. 4

MCCCD Governing Board Approval Date: June 28, 2022

Industrial Design Technology

3204 - Associate in Applied Science (AAS) - (61-69 Credits)

Field of Interest: **Applied Technology**

For Information: David Zamora

Phone: 602-286-8656

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/industrial-design-technology-3204-aas>

Description:

The Associate in Applied Science (AAS) in Industrial Design Technology program prepares students for careers in the field of Industrial Design. This expertise will allow employment in a variety of hi-tech product development and medical device, consumer product, aerospace, and automotive manufacturing companies. The program includes courses designed to provide students with a working knowledge in the field of product design, product development and rapid part production. Competency and technical expertise will be learned on industry specific three-dimensional (3D) Solid Design software and 3D printers. The core specialty of the program is hands-on experience with Computer Aided Design (CAD), and 3D printing. A Certificate of Completion (CCL) in Industrial Design Technology: Design Specialist is also available.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

This program replaces: AAS/3116 Industrial Design Technology

Program Prerequisites: None

Required Courses (33-35 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

MPT101 Technical Documentation 3

MPT110 Inspection Techniques 3

MPT111 Geometric Dimensioning and Tolerance (GDT) 3

+ MPT113 Coordinate Measuring Machines I 3

+ MPT151 Solid Design I: Solidworks 3

+ MPT152 Solid Design: Certified SolidWorks Associate/Certified SolidWorks Professional Test Preparation (1) OR

MPT298AA Special Projects (1) 1

+ MPT214 3D Scanning and Reverse Engineering: Geomagic 3

+ MPT250 Solid Design II: Advanced Part Modeling: SolidWorks 3

+ MPT251 Solid Design: Documentation/GD&T: Solidworks 3

+ MPT252 Solid Design: Simulation: SolidWorks 3

+ MPT255 Solid Design 3D Printing 4

Restricted Electives (6 Credits):

Students should select 6 credits from the following courses.

- + MPT213 Coordinate Measuring Machines II 3
- + MPT218 Advanced Quality Process Methods 3
- + MPT253 Solid Design: Surface Modeling: SolidWorks 3
- + MPT254 Solid Design: Sheet Metal: SolidWorks 3
- + MPT298AC Special Projects 3

General Education Requirement - Credits: 22-28**General Education Core - Credits: 12-18****First-Year Composition - Credits: 6**

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) 3 AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) OR
- + ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

- COM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) OR
- + COM225 Public Speaking (3) OR
- COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

- CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by assessment

Mathematics - Credits: 3-6

- + MAT140 College Mathematics (5) OR
- + MAT141 College Mathematics(4) OR
- + MAT142 College Mathematics (3) OR
- + MAT145 College Mathematics with Review (5) OR
- + MAT146 College Mathematics with Review (6) OR
- Equivalent or higher level mathematics course in the Mathematical Applications [MA] area. 3-6

General Education Distribution - Credits: 10**Humanities, Arts and Design - Credits: 3**

Any approved general education course from the Humanities, Arts and Design [HU] area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences [SB] area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Science [SG] or [SQ] area. 4

Recommend PHY111 General Physics I for students intending to transfer

MCCCD Governing Board Approval Date: June 28, 2022

Information Technology

3196 - Associate in Applied Science (AAS) - (61-68 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/information-technology-3196-aas>

Description:

The Associate in Applied Science (AAS) in Information Technology (IT) program is designed to provide students with skills to meet information technology needs across industries. This program includes instruction in the principles of computer hardware components and business software, programming, databases, networking, customer service, web development, and information systems and project management. Coursework helps prepare students for a variety of industry-recognized examinations and certifications. Students will earn one or more of the following Certificates of Completion (CCLs):

CCL/5154 Cybersecurity Fundamentals
CCL/5083 Database Development
CCL/5043 Desktop Support
CCL/5793 Foundations of Mobile App Development
CCL/5132 Microsoft Office Professional
CCL/5031 Microsoft System Administration
CCL/5048 Programming and Systems Analysis Level I
CCL/5183N Oracle Database Operations
CCL/5050N Red Hat Linux Engineer
CCL/5984 Web Foundations

Program Notes:

Students must earn a grade of C or better in all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces:

AAS/3023 Information Technology
AAS/3098 Information Technology: Computer Applications Specialist
AAS/3152 Computer Information Systems
AAS/3162 Computer Information Systems Technologies
AAS/3167 Computer and Information Technologies
AAS/3217 Computer Technology
AAS/3546 Business Office Computer Applications
AAS/3547 Computer Applications Technology
AAS/3548 Business Applications
AAS/3786 Computer Information Technology

Program Prerequisites: None

Required Courses (33-41 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

Complete all courses in the specialization below that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor.

Specialization 1: Cybersecurity Fundamentals Credits: 33-38

Information Technology Core Credits: 24-25

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Microsoft Windows course (3) 3

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR

+ CIS119DO Introduction to Oracle: SQL (3) OR

+ CIS276DA MySQL Database (3) OR

+ CIS276DB SQL Server Database (3) 3

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) 3

CIS133DA Internet/Web Development Level I 3

+ CIS156 Python Programming: Level I 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

+ CIS250 Management of Information Systems (3) 3

Students taking CIS271DB would be required to take CIS250.

Cybersecurity Fundamentals Credits: 9-12

CIS111 Ethics in Information Technology (3) OR

+ ITS120 Legal, Ethical and Regulatory Issues (3) 3

+ CIS270 Essentials of Network and Information Security (3) OR

+ CIS271DB Information Security Essentials (3) AND

+ CIS272DB Information Security Principles (3) OR

+ ITS110 Information Security Fundamentals (3) 3-6

+ ITS240 Ethical Hacking and Network Defense 3

Related Area Credits: 0-5

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses

CIS+++++ Any CIS Computer Information Systems courses

CLD+++++ Any CLD Cloud Computing courses
CNT+++++ Any CNT Cisco Network Technology courses
ITS+++++ Any ITS Information Technology Security courses
MST+++++ Any MST Microsoft Technology courses

Specialization 2: Database Development 36-38

Information Technology Core Credits: 21-22

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
MST150++ Microsoft Windows (3) 3

CIS105 Survey of Computer Information Systems 3
+ CIS119DO Introduction to Oracle: SQL 3
CIS133DA Internet/Web Development Level I 3

+ CIS156 Python Programming: Level I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) 3

+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR
CIS250 Management of Information Systems (3) 3

Database Development Credits: 15

CIS117DM Microsoft Access: Database Management (3) OR
+ CIS154 Database Modeling and Design (3) 3

+ CIS150++ Programming Fundamentals 3

+ CIS164AB Oracle: PL/SQL Programming (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3

+ CIS217AM Advanced Microsoft Access: Database Management (3) OR
+ CIS276DB SQL Server Database (3) 3

+ CIS225AB Object-Oriented Analysis and Design 3

Related Area Credits : 0-2

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses
CIS+++++ Any CIS Computer Information Systems courses
CLD+++++ Any CLD Cloud Computing courses
CNT+++++ Any CNT Cisco Network Technology courses

ITS+++++ Any ITS Information Technology Security courses

MST+++++ Any MST Microsoft Technology courses

Specialization 3: Desktop Support Credits: 32-38

Information Technology Core Credits: 24-25

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR

+ CIS119DO Introduction to Oracle: SQL (3) OR

+ CIS276DA MySQL Database (3) OR

+ CIS276DB SQL Server Database (3) 3

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) 3

CIS133DA Internet/Web Development Level I 3

+ CIS150AB Object-Oriented Programming Fundamentals (3) OR

+ CIS156 Python Programming: Level I (3) OR

+ CIS162++ Any C Programming: Level I course (3) OR

+ CIS163AA Java Programming: Level I (3) 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

+ CIS250 Management of Information Systems (3) 3

Desktop Support Credits: 6

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

CIS102DA Customer User Support 3

Related Area Credits: 2-8

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses

CIS+++++ Any CIS Computer Information Systems courses

CLD+++++ Any CLD Cloud Computing courses

CNT+++++ Any CNT Cisco Network Technology courses

ITS+++++ Any ITS Information Technology Security courses

MST+++++ Any MST Microsoft Technology courses

Specialization 4: Foundations of Mobile App Development Credits: 33-38

Information Technology Core Credits: 21-22

CIS105 Survey of Computer Information Systems 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
MST150++ Microsoft Windows (3) 3

CIS117DM Microsoft Access: Database Management (3) OR
+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3

CIS133DA Internet/Web Development Level I 3
+ CIS162++ Any C Programming: Level I course 3

+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR
+ CIS250 Management of Information Systems (3) 3

Foundations of Mobile App Development Credits: 12

CIS120DF Introduction to Adobe Photoshop 3
+ CIS165 Introduction to IOS Application Development 3
+ CIS165DA Introduction to Android Application Development 3

+ CIS165DB C#/VB.NET: Windows 8 App Development (3) OR
+ CIS165DC Xamarin/C# Cross Platform Development (3) 3

Related Area Credits: 0-5

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses
CIS+++++ Any CIS Computer Information Systems courses
CLD+++++ Any CLD Cloud Computing courses
CNT+++++ Any CNT Cisco Network Technology courses
ITS+++++ Any ITS Information Technology Security courses
MST+++++ Any MST Microsoft Technology courses

Specialization 5: Microsoft Office Professional Credits: 31-38

Information Technology Core Credits: 18-19

CIS105 Survey of Computer Information Systems 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development Level I 3

+ CIS150AB Object-Oriented Programming Fundamentals (3) OR
+ CIS156 Python Programming: Level I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

MST150++ Microsoft Windows (3) OR

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) 3

Microsoft Office Professional Credits: 11-13

BPC/OAS111AA Computer Keyboarding (1) OR

Permission of Program Director (0) 0-1

CIS113DE Microsoft Word: Word Processing 3

CIS114DE Excel Spreadsheet 3

CIS118DB Desktop Presentation: PowerPoint 3

CIS124AA Project Management Software: Level I (1) AND

CIS124BA Project Management Software: Level II (1) OR

CIS224 Project Management Microsoft Project for Windows (3) 2-3

Related Area Credits: 0-8

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses

CIS+++++ Any CIS Computer Information Systems courses

CLD+++++ Any CLD Cloud Computing courses

CNT+++++ Any CNT Cisco Network Technology courses

ITS+++++ Any ITS Information Technology Security courses

MST+++++ Any MST Microsoft Technology courses

Specialization 6: Microsoft Server 36-38

Information Technology Core: 21-22

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR

+ CIS119DO Introduction to Oracle: SQL (3) OR

+ CIS276DA MySQL Database (3) OR

+ CIS276DB SQL Server Database (3) 3

CIS133DA Internet/Web Development Level I 3

+ CIS150AB Object-Oriented Programming Fundamentals (3) OR

+ CIS156 Python Programming: Level I (3) OR

+ CIS162++ Any C Programming: Level I course (3) OR

+ CIS163AA Java Programming: Level I (3) 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

+ CIS250 Management of Information Systems (3) 3

MST150++ Microsoft Windows 3

Microsoft Server Credits: 15

CIS121AH Microsoft PowerShell/Command Line Operations 3

+ MST155DC Installation, Storage, and Compute with Windows Server 4

+ MST157DC Networking with Windows Server 4

+ MST158DC Identity Management with Windows Server 2016 4

Related Area Credits: 0-2

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses

CIS+++++ Any CIS Computer Information Systems courses

CLD+++++ Any CLD Cloud Computing courses

CNT+++++ Any CNT Cisco Network Technology courses

ITS+++++ Any ITS Information Technology Security courses

MST+++++ Any MST Microsoft Technology courses

Specialization 7: Oracle Database Operations 32-38

Information Technology Core Credits: 21-22

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) OR

MST150++ Microsoft Windows (3) 3

CIS105 Survey of Computer Information Systems 3

+ CIS119DO Introduction to Oracle: SQL 3

CIS133DA Internet/Web Development Level I 3

+ CIS150AB Object-Oriented Programming Fundamentals (3) OR

+ CIS156 Python Programming: Level I (3) OR

+ CIS162++ Any C Programming: Level I course (3) OR

+ CIS163AA Java Programming: Level I (3) 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

+ CIS250 Management of Information Systems (3) 3

Oracle Database Operations Credits: 9

+ CIS119DP Oracle: Database Administration 3

+ CIS154 Database Modeling and Design 3

+ CIS164AB Oracle: PL/SQL Programming 3

Related Area Credits : 2-8

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses
CIS+++++ Any CIS Computer Information Systems courses
CLD+++++ Any CLD Cloud Computing courses
CNT+++++ Any CNT Cisco Network Technology courses
ITS+++++ Any ITS Information Technology Security courses
MST+++++ Any MST Microsoft Technology courses

Specialization 8: Programming and Systems Analysis Level 1 Courses: 32-38

Information Technology Core Credits: 21-22

CIS105 Survey of Computer Information Systems 3

+ CIS119DO Introduction to Oracle: SQL (3) OR

+ CIS276DA MySQL Database (3) OR

+ CIS276DB SQL Server Database (3) 3

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) OR

MST150++ Microsoft Windows (3) 3

CIS133DA Internet/Web Development Level I 3

+ CIS150AB Object-Oriented Programming Fundamentals 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

+ CIS250 Management of Information Systems (3) 3

Programming and Systems Analysis Credits: 9

+ CIS159 Visual Basic Programming I (3) OR

+ CIS162++ Any C Programming: Level I course (3) OR

+ CIS163AA Java Programming: Level I (3) OR

+ CIS165++ Any Mobile Application Development course (3) 3

+ CIS166++ Any Web Scripting course 3

GBS151 Introduction to Business 3

Related Area Credits: 1-8

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses

CIS+++++ Any CIS Computer Information Systems courses

CLD+++++ Any CLD Cloud Computing courses

CNT+++++ Any CNT Cisco Network Technology courses

ITS+++++ Any ITS Information Technology Security courses

MST+++++ Any MST Microsoft Technology courses

Specialization 9: Redhat Linux Engineer 32-38

Information Technology Core Credits: 21-22

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR

+ CIS119DO Introduction to Oracle: SQL (3) OR

+ CIS276DA MySQL Database (3) OR

+ CIS276DB SQL Server Database (3) 3

CIS126RH Red Hat System Administration I 3

CIS133DA Internet/Web Development Level I 3

+ CIS150AB Object-Oriented Programming Fundamentals (3) OR

+ CIS156 Python Programming: Level I (3) OR

+ CIS162++ Any C Programming: Level I course (3) OR

+ CIS163AA Java Programming: Level I (3) 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

+ CIS250 Management of Information Systems (3) 3

Redhat Linux Engineer Credits: 6

+ CIS238RH Red Hat System Administration II 3

+ CIS240RH Red Hat System Administration III 3

Related Area Credits: 5-11

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses

CIS+++++ Any CIS Computer Information Systems courses

CLD+++++ Any CLD Cloud Computing courses

CNT+++++ Any CNT Cisco Network Technology courses

ITS+++++ Any ITS Information Technology Security courses

MST+++++ Any MST Microsoft Technology courses

Specialization 10: Web Foundations Credits: 36-38

Information Technology Core Credits: 21-22

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) OR

MST150++ Microsoft Windows (3) 3

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR

+ CIS119DO Introduction to Oracle: SQL (3) OR

+ CIS276DA MySQL Database (3) OR

+ CIS276DB SQL Server Database (3) 3

CIS133DA Internet/Web Development Level I 3

+ CIS150AB Object-Oriented Programming Fundamentals (3) OR

+ CIS156 Python Programming: Level I (3) OR

+ CIS162++ Any C Programming: Level I course (3) OR

+ CIS163AA Java Programming: Level I (3) 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

+ CIS250 Management of Information Systems (3) 3

Web Foundation Credits: 15

CIS120DF Introduction to Adobe Photoshop 3

CIS136 Content Management Systems: WordPress 3

+ CIS166AA Introduction to Javascript 3

+ CIS233DA Internet/Web Development Level II 3

+ CIS235 e-Commerce 3

Related Area Credits: 0-2

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses

CIS+++++ Any CIS Computer Information Systems courses

CLD+++++ Any CLD Cloud Computing courses

CNT+++++ Any CNT Cisco Network Technology courses

ITS+++++ Any ITS Information Technology Security courses

MST+++++ Any MST Microsoft Technology courses

Specialization 11: A related Certificate of Completion (CCL) at the discretion of the Program Director (minimum of 11 credits) AND the following core courses with permission of the Program Director.

Information Technology Core Credits: 21-22

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR

+ CIS119DO Introduction to Oracle: SQL (3) OR

+ CIS276DA MySQL Database (3) OR

+ CIS276DB SQL Server Database (3) 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) OR

MST150++ Microsoft Windows (3) 3

- + CIS150AB Object-Oriented Programming Fundamentals (3) OR
- + CIS156 Python Programming: Level I (3) OR
- + CIS162++ Any C Programming: Level I course (3) OR
- + CIS163AA Java Programming: Level I (3) 3

CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4

CIS133DA Internet/Web Development Level I 3

- + CIS224 Project Management Microsoft Project for Windows (3) OR
- CIS250 Management of Information Systems (3) 3

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3)

AND

- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3)

Oral Communication - Credits: 3

- COM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) OR
- + COM225 Public Speaking (3) OR
- COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by assessment 0-3

Mathematics - Credits: 3-6

- + MAT140 College Mathematics (5) OR
 - + MAT141 College Mathematics (4) OR
 - + MAT142 College Mathematics (3) OR
 - MAT145 College Mathematics with Review (5) OR
 - MAT146 College Mathematics with Review (6) OR
- Equivalent or higher level mathematics course in the Mathematical Applications [MA] area. 3-6

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design [HU] area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences [SB] area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Science [SG] or [SQ] area. 4

MCCCD Governing Board Approval Date: June 28, 2022

Marketing and Sales

3094 - Associate in Applied Science (AAS) - (62-69 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/marketing-and-sales-3094-aas>

Description:

The Associate in Applied Science (AAS) in Marketing and Sales program is designed to develop competencies essential for success in marketing and personal selling. By completing this program, students will be better equipped for successful performance in a variety of marketing/management occupations, including wholesaling, retailing, professional sales, and entrepreneurship. Certificates of Completion (CCL) in Marketing and Social Media Marketing are available.

Program Notes:

Students must earn a grade of C or better for all courses in the program.

Program Prerequisites: None

Required Courses (25-27 Credits):

ACC111 Accounting Principles I 3

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

GBS151 Introduction to Business 3

GBS120 Workplace Communication Skills (3) OR

+ GBS233 Business Communication (3) 3

MKT110 Marketing and Social Networking 3

MKT263 Advertising Principles 3

MKT267 Principles of Sales 3

MKT271 Principles of Marketing 3

Restricted Electives (15 Credits):

Students should select 15 credits from the following courses in consultation with a Department Advisor.

CIS103 Introduction to Social Media 3

GBS205 Legal, Ethical, and Regulatory Issues in Business 3

IBS101 Introduction to International Business 3

MGT126 Customer Service Skills and Strategies 3

MGT251 Human Relations in Business 3

MKT+++ Any MKT Marketing courses except courses used to satisfy the Required Courses area. 3-15

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

Any approved general education courses from the First-Year Composition area.

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

Mathematics - Credits: 3-5

Any approved general education course from the Mathematics area.

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area.

Social-Behavioral Sciences - Credits: 3

SBU200 Society and Business 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area. 4

MCCCD Governing Board Approval Date: June 28, 2022

Network and Systems Administration

3189 - Associate in Applied Science (AAS) - (61-74 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/network-and-systems-administration-3189-aas>

Description:

The Associate in Applied Science (AAS) in Network and Systems Administration program provides students with a solid, hands-on skill set of computer, networking, and internetworking systems technology principles and desktop support. Students gain an understanding of the interaction between microcomputer software and hardware, network and internetworking operating systems software and hardware, local area network administration and management, the use of troubleshooting techniques, troubleshooting hardware and software tools, as well as interpersonal/customer service skills. Students have the opportunity to specialize in specific information technology areas based on their interests and professional goals and leading to industry recognized certifications through an embedded Certificate of Completion (CCL) including, but not limited to, Desktop (Desktop Support, Computer System Configuration and Support, Computer System Configuration and Support, Network, Computer System Configuration and Support, Security, Computer System Configuration and Support, Linux), Cisco (Cisco Network CCNA, Cisco Network CCNP, Cisco Network CCNA Security), Linux (Red Hat Linux Engineer, Linux Associate, Red Hat Linux Administrator, Linux System Administration), Microsoft (Microsoft System Administration, Microsoft Desktop Associate), and VMware (VMware Network Administrator, VMware Foundations, VMware System Administrator). Graduates may pursue employment in a variety of information technology environments and/or transfer to a university.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students may receive credit for courses within the program based on current industry certifications.

This program replaces:

AAS/3013 Linux Networking Administration

AAS/3095 Information Technology: Cisco Networking

AAS/3096 Information Technology: Network Server

AAS/3208 Networking System Administration

AAS/3312 Computer and Networking Technology

AAS/3778 Microsoft Networking Technology

AAS/3794 Network Administration

AAS/3816 Networking Technology: Cisco

Program Prerequisites: None

Required Courses (31-46 Credits):

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS102DA Customer User Support 3

CIS105 Survey of Computer Information Systems 3

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

(CNT140AB is required for students on the Cisco specialization)

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

Students must also select from one of the following specializations based on their career goals.

Specialization 1: Cisco System Administration (CCNA) and Security

Credits: 12

+ CNT150AB Switching, Routing, and Wireless Essentials 4

+ CNT160AB Enterprise Networking, Security, and Automation 4

+ CNT202 Cisco Secure Firewall Appliance Configuration (4) OR

+ CNT205 Cisco Certified Network Associate Security (4) 4

Specialization 2: Cisco System Administration (CCNP)

Credits: 24

+ CNT150AB Switching, Routing, and Wireless Essentials 4

+ CNT160AB Enterprise Networking, Security, and Automation 4

+ CNT240 Cisco Certified Network Professional: Enterprise Core (8) OR

+ CNT240AA Cisco Certified Network Professional: Enterprise Core I (4) AND

+ CNT240AB Cisco Certified Network Professional: Enterprise Core II (4) 8

+ CNT250 Cisco Certified Network Professional: Enterprise Advanced Routing and Services (8) OR

+ CNT250AA Cisco Certified Network Professional: Enterprise Advanced Routing and Services I (4)
AND

+ CNT250AB Cisco Certified Network Professional: Enterprise Advanced Routing and Services II (4) 8

Specialization 3: Linux System Administration

Credits: 15

+ CIS238DL Linux System Administration 3

+ CIS239DL Linux Shell Scripting 3

+ CIS240DL Linux Network Administration 3

+ CIS271DL Linux Security 3

+ CIS275DL Linux Capstone 3

Specialization 4: Red Hat Enterprise Linux Administration

Credits: 15

- + CIS238RH Red Hat System Administration II 3
- + CIS239DL Linux Shell Scripting 3
- + CIS240RH Red Hat System Administration III 3
- + CIS271RH Red Hat System Administration IV 3
- + CIS275DL Linux Capstone 3

Specialization 5: Cloud System Administration

Credits: 15-16

- + BPC274 Advanced Server Computer Maintenance: Server+ Prep 3
- CIS121AH Microsoft PowerShell/Command Line Operations 3
- + CIS239DL Linux Shell Scripting 3

- + MST160 Azure Administrator (4), OR
- + CLD110 Amazon Web Services Cloud Foundations (3) 3-4

- + MST260 Microsoft Azure Cloud Development and Operations (3), OR
- + CLD120 Amazon Web Services Cloud Architect Associate (3) 3

Specialization 6: VMware Network Administrator

Credits: 12

- CIS189 Virtualization and IT Solutions for Digital Businesses 3
- + CIS197 VMware ESXI Server Enterprise 3
- + CIS198 VMware vSphere: Optimize and Scale 3
- + CIS200 VMware NSX: Install, Configure, Manage 3

Restricted Electives (0-8 Credits):

Students must select enough Restricted Elective credits to meet the minimum total program credits. Students may not select the same courses used to satisfy Required Courses or specializations within the Required Courses. Consult with an Academic, Program, or Faculty Advisor to pick courses that align with your career goals.

Cisco Electives

- CNT140AB Introduction to Networks 4
- + CNT150AB Switching, Routing, and Wireless Essentials 4
- + CNT160AB Enterprise Networking, Security, and Automation 4
- + CNT171 CCNA Exam Prep 1
- + CNT202 Cisco Secure Firewall Appliance Configuration (4) OR
- + CNT205 Cisco Certified Network Associate Security (4) 4
- + CNT206 Cisco Certified Network Associate Wireless 4

Linux Electives

- + CIS238DL Linux System Administration (3) OR
- + CIS238RH Red Hat System Administration II (3) 3
- + CIS239DL Linux Shell Scripting 3
- + CIS240DL Linux Network Administration (3) OR
- + CIS240RH Red Hat System Administration III (3) 3

+ CIS275DL Linux Capstone 3

Microsoft Electives

MST+++++ Any MST Microsoft Technology course

CIS121AB Microsoft Command Line Operations 1

CIS121AH Microsoft PowerShell/Command Line Operations 3

Security Electives

+ CIS270 Essentials of Network and Information Security 3

+ CIS271DB Information Security Essentials 3

+ CIS272DB Information Security Principles 3

+ ITS110 Information Security Fundamentals 3

VMware Electives

CIS189 Virtualization and IT Solutions for Digital Businesses 3

+ CIS197 VMware ESXI Server Enterprise 3

+ CIS198 VMware vSphere: Optimize and Scale 3

+ CIS200 VMware NSX: Install, Configure, Manage 3

Other Information Technology Electives

+ BPC171 Recycling Used Computer Technology 1-3

CIS111 Ethics in Information Technology 3

CIS124AA Project Management Software: Level I 1

+ CIS124BA Project Management Software: Level II 1

+ CIS156 Python Programming: Level I 3

+ CIS190 Introduction to Networking 3

CIS224 Project Management Microsoft Project for Windows 3

+ CIS240 Local Area Network Planning and Design 3

+ CIS250 Management of Information Systems 3

+ CIS266 Network Integration Capstone 4

+ CIS290++ Computer Information Systems Internship 1-3

+ CIS296++ Cooperative Education 2-3

+ CIS298++ Special Projects 1-3

ITS120 Legal, Ethical, and Regulatory Issues 3

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR

+ ENG107 First-Year Composition for ESL (3)

AND

+ ENG102 First-Year Composition (3) OR

+ ENG108 First-Year Composition for ESL (3) OR

+ ENG111 Technical and Professional Writing (3) 6

(ENG111 does not count as an ENG Transfer option)

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3

COM225 is recommended for students transferring to Northern Arizona University.

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment 0-3

Mathematics - Credits: 3-6

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Equivalent or higher level mathematics course in the Mathematical Applications area. 3-6

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences - Credits: 4

Any approved general education course from the Natural Sciences area. 4

MCCCD Governing Board Approval Date: June 28, 2022

Nuclear Medicine Technology

3688 - Associate in Applied Science (AAS) - (110-123 Credits)

Field of Interest: **Health Sciences**

For Information: Julie Bolin

Email: julie.bolin@gatewaycc.edu

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/nuclear-medicine-technology-3688-aas>

Description:

The Associate in Applied Science (AAS) in Nuclear Medicine Technology (NMT) program is designed to develop competent entry-level nuclear technologists through a variety of didactic, clinical, and laboratory experiences. Upon successful completion, students are eligible to sit for board certification and may pursue stackable post-primary certifications. The curriculum is structured to provide appropriate didactic and lab instruction, as well as ample supervised clinical exposure, to ensure sufficient opportunity to achieve all didactic and clinical requirements.

Program Notes:

Students must complete the following general education and introductory courses with a 3.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum: BIO201, BIO202, [(CHM130 and CHM130LL) or CHM130AA or (CHM138 and CHM138LL)], (CRE101 or equivalent as indicated by assessment), (ENG101 or ENG107), (ENG102 or ENG108), (MAT15+ or equivalent course or satisfactory completion of a higher-level algebra mathematics course), NUC100, [PHY101 or (PHY111 and PHY112)].

Admission Criteria:

1. Formal application and admission to the program.
2. Background Check Requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
3. Clinical health and safety requirements must be met prior to enrollment in any program of study course. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy and drug testing protocols.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes or during the program may result in cancellation of enrollment.
5. There are limited spaces available in the NMT program. Only students who have completed all the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.
6. As long as all general education and introductory courses have been completed, potential students residing outside of the state of Arizona can seek permission from the Program Director to be placed on the waitlist, granted a position number, and agree to take NUC100 in the semester prior to formal program admission.

Readmission Criteria:

The Program reserves the right to deny acceptance of an admission application if the applicant was dismissed from any program for issues relating to academic integrity and/or unsafe patient care.

Program Prerequisites: None**Required Courses (88-94 Credits):**

- + BIO201 Human Anatomy and Physiology I 4
- + BIO202 Human Anatomy and Physiology II 4

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

- NUC100 Introduction to Nuclear Medicine Technology 1
- + NUC101 Essentials of Nuclear Medicine Technology 1
- + NUC103 Nuclear Medicine Image Evaluation I 1
- + NUC110 Introduction to Radiation Physics and Biology for Nuclear Medicine 3
- + NUC112 Nuclear Medicine Quality Control Laboratory 1
- + NUC113 Nuclear Medicine Clinical Applications Laboratory 1
- + NUC114 Nuclear Medicine Instrumentation 3
- + NUC116 Nuclear Medicine Procedures I 3
- + NUC126 Nuclear Medicine Procedures II 3
- + NUC130 Professionalism and Patient Care 1
- + NUC212 Clinical Practicum I 1.5
- + NUC220 Sectional Anatomy for Nuclear Medicine 3
- + NUC222 Clinical Practicum II 3
- + NUC223 Nuclear Medicine Image Evaluation II 1
- + NUC232 Clinical Practicum III 3
- + NUC233 Nuclear Medicine Image Evaluation III 1
- + NUC234 Nuclear Medicine Department Administration 3
- + NUC236 Nuclear Medicine Procedures III 3
- + NUC242 Clinical Practicum IV 3
- + NUC243 Nuclear Medicine Image Evaluation IV 1
- + NUC244 Nuclear Medicine Radiopharmacy 3
- + NUC246 Nuclear Medicine Procedures IV 3
- + NUC250 Fundamentals of Computed Tomography and Elements of Magnetic Resonance Imaging 3
- + NUC251 Computed Tomography and Hybrid Imaging Case Analysis 3
- + NUC259 Fundamentals of Research in Nuclear Medicine 3
- + NUC260 Research Methods and Design 3
- + NUC262 Capstone Practicum 1.5
- + NUC263 Nuclear Medicine Research Presentation and Publication 3
- + NUC272 Cardiac Practicum 1.5
- + NUC276 Nuclear Cardiology 3
- + NUC280 Nuclear Medicine PET Physics and Instrumentation 3
- + NUC283 PET/CT Practicum 1.5
- + NUC290 Nuclear Medicine Seminar 3

- + PHY101 Introduction to Physics (4) OR
- + PHY111 General Physics I (4) AND
- + PHY112 General Physics II (4) 4-8

Restricted Electives (0-1 Credit):

Students interested in more cardiac clinical experience may complete zero (0) to one (1) credit with permission of the Nuclear Medicine Program Director.

DMI/NUC108 Structured Diagnostic Medical Imaging Skills Enhancement 1

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) 3

- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 3

Oral Communication - Credits: 3

- COM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by assessment. (0) 0-3

Mathematics - Credits: 3-6

- + MAT150 College Algebra/Functions (5) OR
- + MAT151 College Algebra/Functions (4) OR
- + MAT152 College Algebra/Functions (3) OR
- + MAT155 College Algebra/Functions with Review (5) OR
- + MAT156 College Algebra/Functions with Review (6) OR
- Equivalent course or satisfactory completion of a higher-level algebra mathematics course 3-6

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course in the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences - Credits: 4

- + CHM130 Fundamental Chemistry (3) AND
- + CHM130LL Fundamental Chemistry Laboratory (1) OR
- + CHM130AA Fundamental Chemistry with Lab (4) OR

- + CHM138 Chemistry for Allied Health (3) AND
- + CHM138LL Chemistry for Allied Health Laboratory (1) 4

MCCCD Governing Board Approval Date: June 28, 2022

Nursing

3812 - Associate in Applied Science (AAS) - (62-75 Credits)

Field of Interest: **Health Sciences**

For Information: Jeri Lastine

Phone: 602-286-8560

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/nursing-3812-aas>

Description:

The Associate in Applied Science (AAS) in Nursing Program is available at eight of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. Nursing Program graduates are eligible to apply for the national exam for the registered nurse license. Licensing requirements are the exclusive responsibility of the State Board of Nursing.

The Associate in Applied Science (AAS) Nursing Program is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; (404.975.5000); email: info@acennursing.org.

Program offerings:

This program is offered at the following sites:

Chandler-Gilbert Community College

Estrella Mountain Community College

GateWay Community College

Glendale Community College

Mesa Community College

Paradise Valley Community College

Phoenix College

Scottsdale Community College

Waiver of Licensure/Certification Guarantee:

Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

Level One Fingerprint Clearance is required for admission into the program. Applicants must present a Level One Fingerprint Clearance Card to be copied by the advisor or designee. For a Department of Public Safety Fingerprint Clearance Card application, contact MCCC HealthCare/Nursing Advisor. If

there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602.771.7800).

Health Declaration:

It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients` lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. All must provide documentation of compliance with all health and safety requirements required to protect patient safety. Only students in compliance are permitted to enroll in nursing courses. Students will meet these requirements by providing the required documentation for the Health/Safety Requirements Documentation Checklist and the signed Health Declaration Form.

Health and Safety Requirements for the MaricopaNursing Program:

1. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCDCD background check policy.

University Transfer Students:

Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at the Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

REGISTERED NURSE PATHWAY

Associate in Applied Science Degree in Nursing Program

The Associate in Applied Science (AAS) degree in Nursing graduate is eligible to apply for licensure as a Registered Nurse (RN). The RN is educated as a generalist who delivers health care to clients and family groups and has competencies related to the art and science of nursing. The RN may be employed in a variety of acute, long term, and community-based healthcare settings. The AAS degree in Nursing provides the graduate with an educational foundation for articulation into the university setting.

Program Notes:

Students must earn a grade of C or better in all courses required within the program.

Students must complete the following general education and introductory courses with a 2.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum. BIO156

or BIO181, BIO201, CHM130 and CHM130LL, CHM130AA, ENG101 or ENG107, MAT140 or MAT141 or MAT142.

Course Fee Information:

Please see class schedule for information regarding course fees.

Maricopa Nursing is aligned with Nurse of the Future Competencies: Person-Centered Care, Professionalism, Leadership, Systems-Based Practice, Informatics and Technology, Communication, Teamwork and Collaboration, Safety, Quality Improvement, and Evidence-Based Practice. These competencies focus on key stakeholders of healthcare clients, colleagues and communities. Demonstration of the competencies will signify preparation for successful transition into nursing practice and further professional development.

Admission Criteria:

High school diploma or GED is required for the Associate in Applied Science degree in Nursing. Applicants must signify that they meet this requirement by providing high school diploma/transcripts or GED completion OR by signing the nursing application page containing the 'Declaration of High School Graduation or GED Completion.' In some instances, high school diploma/transcripts or proof of GED completion may be required.

Formal application and admission to the program is required. There are limited spaces available in the Nursing program. Only students who have completed all of the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort. A passing score on a nursing program admission test is required to complete an application.

Successful completion of a nurse assistant course (course must include an in-person clinical component) or certification or licensure as a Nurse Assistant is required to complete an application. The Nurse Assistant course does not have to be completed at a Maricopa college and certification or licensure is not required to apply. There is currently no time limit on when the Nurse Assistant course was taken.

Applicants for Advanced Placement must receive a passing score on a practical nursing content exam for placement into Block 3. The final placement decision rests with the Nursing Program Chair at the college to which the student is accepted. Advanced placement applications are maintained for two years from the date of application. After two years, the applicant is required to review, update, and resubmit the application.

The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was previously dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate or license as a Nursing Assistant and/or license as a Practical Nurse must remain in good standing with the Regulatory Board. Once enrolled, students receiving any disciplinary actions against their certificate or license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student's participation in clinical experiences and involvement in patient care until the certificate and/or license is valid and unrestricted.

Program Prerequisites: None

Required Courses (40-48 Credits):

+ BIO156 Introductory Biology for Allied Health (4) OR

+ BIO181 General Biology (Majors) I (4) OR

One year of high school biology (0) 0-4

+ BIO201 Human Anatomy and Physiology I 4

+ CHM130 Fundamental Chemistry (3) AND

+ CHM130LL Fundamental Chemistry Laboratory (1) OR

+ CHM130AA Fundamental Chemistry with Lab (4) OR

One year of high school chemistry (0) 0-4

+ NUR152 Nursing Theory and Science I 9

+ NUR172 Nursing Theory and Science II 9

+ NUR252 Nursing Theory and Science III 9

+ NUR283 Nursing Theory and Science IV 9

General Education Requirement - Credits: 22-27

General Education Core - Credits: 9-14

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR

+ ENG107 First-Year Composition for ESL (3) 3

+ ENG102 First-Year Composition (3) OR

+ ENG108 First-Year Composition for ESL (3) 3

Oral Communication - Credits: 0

Waived

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment

Mathematics - Credits: 3-5

+ MAT140 College Mathematics (5) OR

+ MAT141 College Mathematics (4) OR

+ MAT142 College Mathematics (3) OR

Satisfactory completion of higher level math course 3-5

General Education Distribution - Credits: 13

Humanities, Arts and Design - Credits: 2

Any approved general education course in the Humanities, Arts and Design area.

Social-Behavioral Sciences - Credits: 3

PSY101 Introduction to Psychology 3

Natural Sciences - Credits: 8

+ BIO202 Human Anatomy and Physiology II (4) AND

+ BIO205 Microbiology (4) 8

MCCCD Governing Board Approval Date: December 13, 2022

Occupational Therapy Assistant

3176 - Associate in Applied Science (AAS) - (70.5-80.5 Credits)

Field of Interest: **Health Sciences**

For Information: Marla Pomeranz

Phone: 602-286-8020

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/occupational-therapy-assistant-3176-aas>

Description:

The Associate in Applied Science (AAS) in Occupational Therapy Assistant (OTA) program prepares students to use therapeutic modalities and procedures under the direction and supervision of an occupational therapist. The OTA provides rehabilitative services to people with physical, psycho-social and developmental impairments as well as helps people of all ages regain independence and participate in daily activities. Occupational therapy assistants blend science, creativity, and compassion to help their clients develop skills and strategies to participate fully in meaningful life activities.

Occupational therapy assistants are skilled health care workers who provide direct patient care under the supervision of an occupational therapist (OT). Work locations include but are not limited to rehabilitation centers, home health agencies, schools, skilled nursing facilities, hospitals, and outpatient clinics.

Program graduates will be eligible to take the National Occupational Therapy Certification Examination administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of the examination, graduates are certified as occupational therapy assistants and are eligible to apply for state licensure.

Program Notes:

Students must obtain a B or better in all courses required within the program.

Where selected as part of program completion, the following general education and introductory courses must be completed with a 3.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum: BIO201, BIO202, CRE101, COM100, COM110, COM230, ENG101, ENG107, HCC146, OTA100, PSY101.

Admission Criteria:

1. Formal application for admission to the program.
2. Completion of 20 observation hours, 10 in pediatrics and 10 with adults as noted in the program information packet. Completion of observation hour form filled out and signed by supervisor and turned in with program application.

Students with other related health care experiences not listed on the following program preparatory options may request an evaluation for course competency equivalence for work experience or equivalent education as evaluated by the GateWay Health Core Curriculum Coordinator.

3. Background check requirements: Admission to an Allied Health program requires that students comply with the Maricopa County Community College District Background Check Standards.

Upon program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.

4. Clinical health and safety requirements must be met prior to enrollment in any program of study course. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy and drug testing protocols.
5. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.
6. Current American Heart Association HealthCare Provider CPR Certificate.
7. There are limited spaces available in the OTA program. Only students who have completed all of the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

Program Prerequisites: None

Required Courses (48.5-52.5 Credits):

+ BIO202 Human Anatomy and Physiology II 4

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

HCC146 Common Medical Terminology for Health Care Professionals (2) OR
Work experience or equivalent education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-2

OTA100 Introduction to Occupational Therapy Assistant Profession 2
+ OTA102 Psychosocial Health and Occupation 3
+ OTA105 Fieldwork: Psychosocial 0.5
+ OTA107 Fundamentals of Occupational Therapy 3
+ OTA117 Physical Health and Occupations 3
+ OTA157 Occupational Therapy Assistant in Physical Rehabilitation 3
+ OTA201 Assistive Technology 2
+ OTA205 Fieldwork: Geriatric 0.5
+ OTA207 Occupational Therapy Assistant in Geriatrics 3
+ OTA215 Fieldwork: Pediatric I 0.5
+ OTA216 Occupational Therapy Assisting Pediatrics I 2
+ OTA217 Occupational Therapy Assisting Pediatrics II 3
+ OTA234 Occupational Therapy Assistant Professional Standards 2
+ OTA255 Fieldwork: Adult 4
+ OTA265 Fieldwork: Pediatric II 4
+ OTA284 Occupational Therapy Assistant Professional Transition 2
+ PSY266 Psychological Disorders 3
SOC101 Introduction to Sociology 3

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3

+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 3

Oral Communication - Credits: 3

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent by assessment (0) 0-3

Mathematics - Credits: 3-6

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
+ MAT206 Elements of Statistics (3) 3-6

General Education Distribution - Credits: 10**Humanities, Arts and Design - Credits: 3**

Any approved general education course from the Humanities, Arts, and Design area. 3

Social-Behavioral Sciences - Credits: 3

PSY101 Introduction to Psychology 3

Natural Sciences - Credits: 4

+ BIO201 Human Anatomy and Physiology I 4

MCCCD Governing Board Approval Date: March 28, 2023

Organizational Management

3727 - Associate in Applied Science (AAS) - (61-68 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/organizational-management-3727-aas>

Description:

The Associate in Applied Science (AAS) in Organizational Management program is designed with a customized curriculum specific to the student's individual needs in addition to the knowledge and skills needed in today's changing workplace. The program provides leadership and communication skills and techniques for planning, organizing, leading and controlling business situations. This program also emphasizes procedures for effective resource allocation. A Certificate of Completion (CCL) in Organizational Leadership is fully embedded in this AAS.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Program Prerequisites: None

Required Courses (19-22 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

Certificate of Completion in Organizational Leadership (5731) - Requirements listed below

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3

GBS110 Human Relations in Business and Industry (3) OR

MGT251 Human Relations in Business (3) 3

GBS120 Workplace Communication Skills 3

GBS151 Introduction to Business 3

MGT175 Business Organization and Management (3) OR

TQM240 Project Management in Quality Organizations (3) 3

MGT101 Techniques of Supervision (3) OR

MGT229 Management and Leadership I (3) 3

Restricted Electives (20 Credits):

Students must choose 20 industry/job related course credits from any MCCCDC occupational program and/or Academic Certificate.

Industry/job related course credits must include a minimum of 9 credits with a common subject or theme. Program of study must be approved by the business department chair or designee.

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 6

Oral Communication - Credits: 3

Any approved general education course from the Oral Communication area.

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent by assessment 0-3

Mathematics - Credits: 3-5

Any approved general education course from the Mathematics area. 3-5

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences [SB] area. 3

Natural Sciences - Credits: 4

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area. 4

MCCCD Governing Board Approval Date: June 28, 2022

Physical Therapist Assisting

3675 - Associate in Applied Science (AAS) - (75-82 Credits)

Field of Interest: **Health Sciences**

For Information: Laura Safa

Email: laura.safa@gatewaycc.edu

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/physical-therapist-assisting-3675-aas>

Description:

The Associate in Applied Science (AAS) in the Physical Therapist Assisting program prepares students to use therapeutic modalities and procedures under the direction and supervision of a physical therapist. The physical therapist assistant works with patients who have physical impairments requiring physical therapy services to relieve pain and heal damaged tissue; and to improve range of motion, strength, and functional mobility. Physical therapy treatments include but are not limited to the application of therapeutic modalities; therapeutic exercise including stretching, range of motion, and strengthening; mobility skills including ambulation, transfers, and wheelchair mobility activities; balance exercises; and wound care management.

The Physical Therapist Assisting program is accredited by the Commission on Accreditation in Physical Therapy Education. Only graduates of an accredited training program may practice as a physical therapist assistant in the state of Arizona. Program graduates are eligible to apply for the certification examination administered by the Federation of State Boards of Physical Therapy. A passing score on this examination is required for licensure/certification to practice as a physical therapist assistant in Arizona and in many other states.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

If selected as part of program completion, the following general education courses must be completed with a B or higher to apply for an available space to begin the core curriculum: BIO160 or BIO201; ENG101 or ENG107; and ENG102 or ENG108.

Students with other related health care experiences not listed on the following program preparatory options may request an evaluation for course competency equivalence for work experience or equivalent education as evaluated by the GateWay Health Core Curriculum Coordinator. Once admitted to the program, students should plan to attend full time.

Required HCC courses may be taken prior to program admission or concurrent with required courses. HCC courses must be completed prior to clinical placement if taken concurrent with required courses.

Admission Criteria:

1. Formal application and admission to begin the core curriculum is determined by a point system. See point system description in Physical Therapist Assisting (PTA) program packet in the Health Sciences Division of college.
2. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District background check

standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC background check policy and drug testing protocols.

3. Clinical health and safety requirements: Prior to placement in the clinical setting, the student must comply with all requirements of the MCCCDC clinical health and safety policy.
4. Inability to comply with background check requirements and/or clinical health and safety requirements prior to placement in the clinical setting may result in cancellation of enrollment.
5. Forty (40) hours of volunteer/work/observation in physical therapy practice settings supervised by a licensed physical therapist or physical therapist assistant are required to apply for admission into the PTA program. A minimum of 10 hours in an inpatient (hospital, skilled nursing facility, rehabilitation hospital) setting is required.

Program Prerequisites: None

Required Courses (53-54 Credits):

HCC145 Medical Terminology for Health Care Professionals (3) OR

HCC146 Common Medical Terminology for Health Care Professionals (2) 2-3

- + PTA101 Survey of Physical Therapy 1.5
- + PTA103 Kinesiology 3
- + PTA104 Musculo-Skeletal Assessment Techniques 1.5
- + PTA200 Patient Mobility Techniques 4
- + PTA202 Therapeutic Modalities 5
- + PTA203 Clinical Pathology 3
- + PTA204 Preclinical Practicum I 0.5
- + PTA205 Communication in Physical Therapy 1.5
- + PTA206 Clinical Practicum I 3
- + PTA207 Clinical Practicum Seminar I 1
- + PTA208 Rehabilitation of Special Populations 5
- + PTA210 Orthopedic Physical Therapy 4
- + PTA214 Electromodalities 2.5
- + PTA215 Wound Care for the Physical Therapist Assistant 1
- + PTA217 Clinical Neurology 2
- + PTA230 Physical Therapy Seminar 2
- + PTA279 Preclinical Practicum II 0.5
- + PTA280 Clinical Practicum II 3
- + PTA281 Clinical Practicum Seminar II 1
- + PTA290 Clinical Practicum III 3
- + PTA292 Clinical Practicum Seminar III 1
- + PTA295 Physical Therapist Assistant Examination Review 2

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR

+ ENG107 First-Year Composition for ESL (3) 3

- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 3

Oral Communication - Credits: 3

Any approved general education course from the Oral Communication area 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by assessment 0-3

Mathematics - Credits: 3-6

Any approved general education course from the Mathematics area 3-6

Recommend the following courses for students who are interested in transferring to university:

- + MAT140 College Mathematics (5) OR
 - + MAT141 College Mathematics (4) OR
 - + MAT142 College Mathematics (3) OR
- MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area 3

Social-Behavioral Sciences - Credits: 3

PSY101 Introduction to Psychology 3

Natural Sciences - Credits: 4

- BIO160 Introduction to Human Anatomy and Physiology (4) OR
- + BIO201 Human Anatomy and Physiology I (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Radiologic Technology

3582 - Associate in Applied Science (AAS) - (84-93.5 Credits)

Field of Interest: **Health Sciences**

For Information: Brad Johnson

Phone: 602-286-8502

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/radiologic-technology-3582-aas>

Description:

The Associate in Applied Science (AAS) in Radiologic Technology is a full-time program providing educational activities preparing its graduates for certification, licensure, and employment as radiographers in the healthcare community. Graduates may also advance in their profession by pursuing continuing education, additional certifications, or a bachelor's and/or master's degree in a related field.

Radiologic technologists are the health care professionals who use medical imaging equipment to perform x-ray examinations in a variety of settings including, but not limited to, hospitals, physician's offices, clinics, medical imaging centers, surgical centers, and mobile imaging agencies. Technologists work in collaboration with other medical professionals to ensure high quality outcomes for the patient experience.

The Radiologic Technology program is an intensive, rigorous course of study with hands-on clinical experiences. Students will perform patient care and are educated in anatomy, physiology, math, physics, patient positioning, examination techniques, equipment protocols, radiation safety, and radiation protection. Students in the program will be exposed to blood-borne pathogens and infectious diseases.

The Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT) and graduates are eligible to apply for admission to the certification exam administered by the American Registry of Radiologic Technologists (ARRT). Visit www.jrcert.org for more information. Joint Review Committee on Education in Radiologic Technology 20 N. Wacker Drive, Suite 2850 Chicago, IL 60606-3182 Phone: 312-704-5300 | Fax: 312-704-5304 | mail@jrcert.org | www.jrcert.org.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Students must complete the following general education and introductory courses with a 3.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum: BIO201, BIO202, (COM100 or COM110 or COM230), (CRE101 or equivalent by assessment), (ENG101 or ENG107), (ENG102 or ENG108), any approved general education course in the Social-Behavioral Sciences area, any approved general education course in the Humanities, Arts, and Design area, (MAT15+ or any approved general education course in the Mathematics area for which MAT15+ is a prerequisite).

After acceptance into the program and before the start of required courses in the Fall semester, students must complete the following courses in the Spring:

- + RAD100 Introduction to Radiologic Science and Health Care 3
- + RAD101 Ethics and Law in the Radiologic Sciences 1

Admission Criteria:

1. Formal application and admission to the program.
2. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
3. Clinical Health and Safety Requirements must be met prior to enrollment in any program of study course. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy and drug testing protocols.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.
5. There are limited spaces available in the Radiologic Technology program. Only students who have completed all of the general education courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

Program Prerequisites: None.

Required Courses (62-62.5 Credits):

- + BIO202 Human Anatomy and Physiology II 4

HCC/RES109 CPR for Health Care Provider (0.5) OR

Proof of Current American Heart Association Health Care Provider CPR Certification (0) 0-0.5

Students must maintain a current CPR certification throughout the program. Specific requirements for this certification will be shared as part of the program orientation.

- + RAD100 Introduction to Radiologic Science and Health Care 3
- + RAD101 Ethics and Law in the Radiologic Sciences 1
- + RAD102 Structured Diagnostic Medical Imaging Skills Enhancement I 1
- + RAD103 Radiation Protection in Radiologic Technology 2
- + RAD104 Imaging Equipment 2
- + RAD105 Radiation Production and Principles of Exposure 2.5
- + RAD106 Patient Care in Radiologic Sciences I 2.5
- + RAD107 Radiographic Procedures I 3
- + RAD109 Radiography Practicum I 3.5
- + RAD112 Structured Diagnostic Medical Imaging Skills Enhancement II 1
- + RAD114 Digital Image Acquisition and Display I 2
- + RAD116 Patient Care in Radiologic Sciences II 2.5
- + RAD117 Radiographic Procedures II 3
- + RAD119 Radiography Practicum II 6
- + RAD203 Radiation Biology 2
- + RAD206 Pharmacology and Venipuncture 1

- + RAD207 Radiographic Procedures III 3
- + RAD208 Image Analysis I 1
- + RAD209 Radiography Practicum III 5
- + RAD212 Structured Diagnostic Medical Imaging Skills Enhancement III 1
- + RAD214 Digital Image Acquisition and Display II 2
- + RAD217 Radiographic Pathology and Additional Modalities 2
- + RAD218 Image Analysis II 1
- + RAD219 Radiography Practicum IV 5

General Electives (0-3 Credits):

Students have the option of taking one of the following courses during their last semester. Speak to the Program Director for more information.

- + DMI/DMS/ICE220 Sectional Anatomy 3
- + DMI/ICE223 Introduction to Computed Tomography (1) OR
- + ICE233 Fundamentals of Magnetic Resonance Imaging (MRI) (1) 1
- + ICE250 Mammography 3

General Education Requirement - Credits: 22-28

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 6

Oral Communication - Credits: 3

- COM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) OR
- COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent by assessment (0) 0-3

Mathematics - Credits: 3-6

- MAT150 College Algebra/Functions (5) OR
- MAT151 College Algebra/Functions (4) OR
- MAT152 College Algebra/Functions (3) OR
- MAT155 College Algebra/Functions with Review (5) OR
- MAT156 College Algebra/Functions with Review (6) OR
- Any approved general education course in the Mathematics area for which MAT15+ is a prerequisite (3-6) 3-6

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course in the Humanities, Arts, and Design area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course in the Social-Behavioral Sciences area. 3

Natural Sciences - Credits: 4

+ BIO201 Human Anatomy and Physiology I 4

MCCCD Governing Board Approval Date: February 22, 2022

Respiratory Care

3284 - Associate in Applied Science (AAS) - (80.5-96 Credits)

Field of Interest: **Health Sciences**

For Information: Tracey Schartz

Phone: 602-286-8523

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/respiratory-care-3284-aas>

Description:

The Associate in Applied Science (AAS) in Respiratory Care degree provides education in patient services in the cardiovascular and pulmonary fields. Students will learn how to assess, provide treatment, and perform diagnostic procedures. The program focuses on principles for respiratory therapists to utilize advanced technology in life support systems, administer medications, and perform many techniques to assist patients in the healing process. Curriculum includes experiences in the hospital critical care, trauma, emergency departments, and operating rooms, patient's home, physicians' offices, and out-patient clinics in preparation for employment.

Successful completion of the AAS degree in Respiratory Care enables the program graduates to take the National Board of Respiratory Care (NBRC) Therapist Multiple-Choice (TMC) Examination and Clinical Simulation Examination (CSE). Passing both of these exams is required to earn the RRT credential and make the graduate eligible to obtain their license to practice professionally.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Where selected as part of program completion, the following general education and introductory courses must be completed with a 3.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum: BIO160, BIO201, BIO202, CHM130, CHM130LL, CRE101, ENG101, ENG107, HCC/RES109, and MAT15+ or any approved general education course from the Mathematics area for which MAT15+ is a prerequisite.

Admission Criteria:

1. Formal application and admission to the program.
2. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
3. Clinical health and safety requirements must be met prior to enrollment in any program of study course. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy and drug testing protocols.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes or during the program may result in cancellation of enrollment.
5. There are limited spaces available in the Respiratory Care program. Only students who have completed all of the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

Program Prerequisites: None

Required Courses (58.5-61 Credits):

CHM130 Fundamental Chemistry 3

CHM130LL Fundamental Chemistry Laboratory 1

HCC/RES109 CPR for Health Care Provider (0.5) OR

American Heart Association Health Care Provider CPR certification (0) 0-0.5

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

+ RES118 Vascular Access for Clinical Practice 1

+ RES130 Respiratory Care Fundamentals I 4.5

+ RES131 Infection Control for Respiratory Care 1

+ RES133 Respiratory Care Clinical Seminar 2

+ RES134 Respiratory Care Pharmacology I 2

+ RES136 Applied Biophysics for Respiratory Care 3

+ RES140 Respiratory Care Fundamentals II 5

+ RES142 Respiratory Care Clinical I 4

+ RES144 Introduction to Mechanical Ventilation 1

+ RES220 Respiratory Care Fundamentals III 4.5

+ RES224 Pathophysiology for Respiratory Care 2

+ RES226 Respiratory Care Clinical II 4

+ RES230 Respiratory Care Fundamentals IV 4.5

+ RES232 Respiratory Care Clinical III 4

+ RES235 Respiratory Care Pharmacology II 2

+ RES240 Respiratory Physiology 3

+ RES270 Neonatal and Pediatric Respiratory Care 2

+ RES280 Respiratory Care Review 2

+ RES291 Respiratory Care Advanced Life Support 1

+ RES292 Respiratory Care Pediatric Advanced Life Support 1

Restricted Electives (0-3 Credits):

Students seeking university transfer may select zero (0) to three (3) credits:

HES100 Healthful Living 3

General Education Requirement - Credits: 22-32

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

+ ENG101 First-Year Composition (3) OR

+ ENG107 First-Year Composition for ESL (3) AND

+ ENG102 First-Year Composition (3) OR

+ ENG108 First-Year Composition for ESL (3)

Oral Communication - Credits: 3

Any approved general education course from the Oral Communication area except COM225 Public Speaking. 3

Critical Reading - Credits: 0-3

CRE101 College Critical Reading and Critical Thinking
or equivalent as indicated by assessment (0-3)

Mathematics - Credits: 3-6

MAT150 College Algebra/Functions (5) OR

MAT151 College Algebra/Functions (4) OR

MAT152 College Algebra/Functions (3) OR

MAT155 College Algebra/Functions with Review (5) OR

MAT156 College Algebra/Functions with Review (6) OR

Any approved general education course in the Mathematics area for which MAT15+ is a prerequisite (3-6) 3-6

General Education Distribution - Credits: 10-14**Humanities, Arts and Design - Credits: 3**

Any approved general education course in the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

PSY101 Introduction to Psychology 3

Natural Sciences - Credits: 4-8

BIO160 Introduction to Human Anatomy and Physiology (4) OR

+ BIO201 Human Anatomy and Physiology I (4) AND

+ BIO202 Human Anatomy and Physiology II (4) 4-8

MCCCD Governing Board Approval Date: June 28, 2022

Sleep Medicine (Polysomnographic) Technology

3135 - Certificate of Competency (CCT) - (65-87 Credits)

Field of Interest: **Health Sciences**

For Information: Baljeet Gill

Phone: 602-286-8482

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/sleep-medicine-polysomnographic-technology-3135-aas>

Description:

The Associate in Applied Science (AAS) in Sleep Medicine (Polysomnographic) Technology includes parallel clinical training in various Valley hospitals and free-standing sleep centers. The Sleep Medicine (Polysomnographic) Technology program prepares sleep (polysomnographic) technologists to assist physicians specializing in sleep medicine in the clinical assessment, physiological monitoring and testing, diagnosis, management, and treatment of sleep-related disorders with the use of various diagnostic and therapeutic tools providing care to patients of all ages. Upon successful completion of the program, the student will be prepared to sit for the Board of Registered Polysomnographic Technologists examination to become a Registered Polysomnographic Technologist (RPSGT).

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Students may opt to transfer from the Sleep Medicine (Polysomnographic) Technology program into the Electroneurodiagnostic (END) Technology while in the first semester of the program. A seat in the END program will be granted if there is no waitlist and Program Director approval is granted at the time of transfer.

HCC courses may be taken prior to admission or concurrently during enrollment in the program.

Admission Criteria:

1. Formal admission to the Sleep Medicine (Polysomnographic) Technology or Electroneurodiagnostic (END) Technology program is required.
2. Formal application can be made at any time.
3. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
4. Clinical health and safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy.
5. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.
6. Proof of current American Heart Association Healthcare Provider CPR Certification.

Program Prerequisites (10-21 Credits):

Students selecting BIO201 and BIO202 must complete the prerequisite courses BIO156 or BIO181. BIO160 Introduction to Human Anatomy and Physiology (4) OR

+ BIO201 Human Anatomy and Physiology I (4) AND
+ BIO202 Human Anatomy and Physiology II (4) 4-8

+ BIO156 Introductory Biology for Allied Health (4) OR
+ BIO181 General Biology (Majors) I (4) OR
One year of high school biology with a grade of C or better (0) 0-4

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3

+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) OR
Equivalent course OR satisfactory completion of a higher level mathematics course. 3-6

Required Courses (43-51 Credits):

+ EEG115 Biomedical Electronic Technology I 2
+ EEG116 Biomedical Electronic Technology II 3
+ EEG130 Introduction to EEG 4
+ EEG210 Applied Neurophysiology 3

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

HCC130 Fundamentals in Health Care Delivery (3)
OR

HCC130AA Health Care Today (0.5) AND
HCC130AB Workplace Behaviors in Health Care (0.5) AND
HCC130AC Personal Wellness and Safety (0.5) AND
HCC130AD Communication and Teamwork in Health Care Organizations (0.5) AND
HCC130AE Legal Issues in Health Care (0.5) AND
HCC130AF Decision Making in the Health Care Setting (0.5)

OR

Work experience or equivalent education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-3

HCC145 Medical Terminology for Health Care Professionals (3) OR
HCC146 Common Medical Terminology for Health Care Professionals (2) OR
Work experience or equivalent education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-3

+ HCC164 Pharmacology for Allied Health 0.5
+ HCC200 Basic Client Care for Allied Health 0.5
HRC101 Overview of Healthcare Compliance 1
+ PSG140 Respiratory Care Fundamentals and Physiology for Polysomnography 4
+ PSG150 Introduction to Sleep Medicine 3
+ PSG150LL Introduction to Sleep Medicine Laboratory 1
+ PSG160 Polysomnographic Procedures 2

- + PSG160LL Polysomnographic Procedures Laboratory 1
- + PSG165 Clinical Polysomnography I 3
- + PSG170 Sleep Therapeutics 2
- + PSG170LL Sleep Therapeutics Laboratory 1
- + PSG250 Record Scoring 2
- + PSG250LL Record Scoring Laboratory 1
- + PSG260 Special Topics in Polysomnography 2
- + PSG265 Clinical Polysomnography II 2
- + PSG275 Clinical Polysomnography III 3
- + PSG282AA Volunteerism for Polysomnographic Technology: Service Learning Experience 1

General Education Requirement - Credits: 12-15

General Education Core - Credits: 6-9

First-Year Composition - Credits: 3

Three (3) credits of First Year Composition are met by ENG101 or ENG107 in Program Prerequisites area.

- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) OR
- + ENG111 Technical and Professional Writing (3) 3

Oral Communication - Credits: 3

Any approved general education course from the Oral Communication area 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by Assessment (0) 0-3

Mathematics - Credits: 0

Met by MAT120 or MAT121 or MAT122 or equivalent course or higher level mathematics course in Program Prerequisites area.

General Education Distribution - Credits: 6

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

PSY101 Introduction to Psychology 3

Natural Sciences - Credits: 0

Met by BIO160 or BIO201 and BIO202 in Program Prerequisites area.

MCCCD Governing Board Approval Date: February 28, 2023

Surgical Technology

3673 - Associate in Applied Science (AAS) - (70.5-97 Credits)

Field of Interest: **Health Sciences**

For Information: Brandy Thompson

Phone: 602-286-8516

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/surgical-technology-3673-aas>

Description:

The Associate in Applied Science (AAS) in Surgical Technology is designed for students with an interest in working in the surgical setting and caring for patients that are undergoing a surgical procedure. Students will apply manual dexterity and knowledge of surgical technology under the direction of a surgeon and in conjunction with the surgical team. At the completion of the program, graduates may seek employment in a hospital, surgical center, other outpatient settings, or surgical equipment industry and veterinary services. In addition, the AAS degree includes common core classes with the Hospital Central Services certificate program. Upon completion of the Surgical Technology program, students take the national Certified Surgical Technologist exam (CST). Students also have the option within the program to complete the 400-hour Hospital Central Service Technology practicum to be eligible to sit for the Certified Registered Central Service Technician (CRCST) certification examination from the Healthcare Sterile Processing Association (HSPA).

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

If selected as part of program completion, the following general education and introductory courses must be completed with a 2.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum: BIO201, BIO202, BIO205, (ENG101 or ENG107), (ENG102 or ENG108), (MAT150 or MAT151 or MAT152 or MAT155 or MAT156), and PHY101.

Admission Criteria:

1. Formal application and admission to the program.
2. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
3. Clinical health and safety requirements must be met prior to enrollment in any program of study course. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy and drug testing protocols.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes or during the program may result in cancellation of enrollment.
5. There are limited spaces available in the Surgical Technology program. Only students who have completed all the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

Program Prerequisites: None

Required Courses (44.5-58 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

There are two options available to students to enter the Surgical Technology program after completing the program courses. Option I is for students who do NOT have a Certified Registered Central Service Technician (CRCST) certification through the HSPA. Option II is for students who hold a current CRCST certification through HSPA and current proof of employment of working in the field. A graduate of the GWCC HCS program 2018 or later will have priority on the waitlist.

Option I

Credits: 48.5-55

+ BIO205 Microbiology 4

HCC130 Fundamentals in Health Care Delivery (3)

OR

HCC130AA Health Care Today (0.5) AND

HCC130AB Workplace Behaviors in Health Care (0.5) AND

HCC130AC Personal Wellness and Safety (0.5) AND

HCC130AD Communication and Teamwork in Health Care Organizations (0.5) AND

HCC130AE Legal Issues in Health Care (0.5) AND

HCC130AF Decision Making in the Health Care Setting (0.5)

OR

Permission of GateWay Health Core Curriculum Coordinator (0) 0-3

HCC145 Medical Terminology for Health Care Professionals (3) OR

HCC146 Common Medical Terminology for Health Care Professionals (2) OR

Work experience or equivalent course education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-3

HCC/RES109 CPR for Health Care Provider (0.5) OR

Proof of Current American Heart Association Health Care Provider CPR Certification (0) 0-0.5

+ HCS/SGT100 Fundamentals of Surgical Services 5

+ HCS/SGT102 Basic Surgical Instrumentation for Surgical Services 2

+ HCS/SGT107 Equipment and Supplies for Surgical Services 1

+ HCS/SGT152 Advanced Surgical Instruments for Surgical Services 2

+ PHY101 Introduction to Physics 4

+ SGT135 Instrument Handling I 3

+ SGT155 Instrument Handling II 1

+ SGT156 Hospital Central Service Practicum for Surgical Technology 0.5

+ SGT165 Surgical Procedures I 4

+ SGT180 Pharmacology for Surgical Technology I 2

+ SGT200 Operating Room Practicum I 1

+ SGT205 Operating Room Practicum II 2

+ SGT210 Surgical Procedures II 4

- + SGT220 Operating Room Practicum III 3
- + SGT225 Operating Room Practicum IV 3
- + SGT227 Operating Room Practicum V 3
- + SGT260 Surgical Procedures III 2
- + SGT275 Certification Examinations Preparation 2

Option II

Credits: 43.5-50

Students who have been admitted into Option II will have HCS/SGT100 waived by the Program Director with proof of a current CRCST certification through HSPA and current proof of employment of working in the field. 0

- + BIO205 Microbiology 4

HCC130 Fundamentals in Health Care Delivery (3)

OR

HCC130AA Health Care Today (0.5) AND

HCC130AB Workplace Behaviors in Health Care (0.5) AND

HCC130AC Personal Wellness and Safety (0.5) AND

HCC130AD Communication and Teamwork in Health Care Organizations (0.5) AND

HCC130AE Legal Issues in Health Care (0.5) AND

HCC130AF Decision Making in the Health Care Setting (0.5)

OR

Permission of GateWay Health Core Curriculum Coordinator (0) 0-3

HCC145 Medical Terminology for Health Care Professionals (3) OR

HCC146 Common Medical Terminology for Health Care Professionals (2) OR

Permission of GateWay Health Core Curriculum Coordinator (0) 0-3

HCC/RES109 CPR for Health Care Provider (0.5) OR

Proof of Current American Heart Association Health Care Provider CPR Certification (0) 0-0.5

- + HCS/SGT102 Basic Surgical Instrumentation for Surgical Services 2
- + HCS/SGT107 Equipment and Supplies for Surgical Services 1
- + HCS/SGT152 Advanced Surgical Instruments for Surgical Services 2
- + PHY101 Introduction to Physics 4
- + SGT135 Instrument Handling I 3
- + SGT155 Instrument Handling II 1
- + SGT156 Hospital Central Service Practicum for Surgical Technology 0.5
- + SGT165 Surgical Procedures I 4
- + SGT180 Pharmacology for Surgical Technology I 2
- + SGT200 Operating Room Practicum I 1
- + SGT205 Operating Room Practicum II 2
- + SGT210 Surgical Procedures II 4
- + SGT220 Operating Room Practicum III 3
- + SGT225 Operating Room Practicum IV 3

- + SGT227 Operating Room Practicum V 3
- + SGT260 Surgical Procedures III 2
- + SGT275 Certification Examinations Preparation 2

Restricted Electives (0-7 Credits):

This course is optional and may be taken to meet eligibility for the exam for Certified Registered Central Service Technician (CRCST) certification from the Healthcare Sterile Processing Association (HSPA).

- + HCS154 Hospital Central Service Practicum 7

General Education Requirement - Credits: 26-32

General Education Core - Credits: 12-18

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) 6

Oral Communication - Credits: 3

- COM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) OR
- COM230 Small Group Communication (3) 3

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by assessment (0) 0-3

Mathematics - Credits: 3-6

- + MAT150 College Algebra/Functions (5) OR
- + MAT151 College Algebra/Functions (4) OR
- + MAT152 College Algebra/Functions (3) OR
- + MAT155 College Algebra/Functions with Review (5) OR
- + MAT156 College Algebra/Functions with Review (6) OR
- Equivalent course or satisfactory completion of a higher-level mathematics course 3-6

General Education Distribution - Credits: 14

Humanities, Arts and Design - Credits: 3

Any approved general education course in the Humanities, Arts and Design [HU] area. 3

Social-Behavioral Sciences - Credits: 3

- SOC101 Introduction to Sociology (3) OR
- PSY101 Introduction to Psychology (3) 3

Natural Sciences - Credits: 8

- + BIO201 Human Anatomy and Physiology I 4
- + BIO202 Human Anatomy and Physiology II 4

MCCCD Governing Board Approval Date: February 28, 2023

Certificates of Completion

Accounting

5665 - Certificate of Completion (CCL) - (24-27 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/accounting-5665-ccl>

Description:

The Certificate of Completion (CCL) in Accounting program is designed for students seeking to gain skills and knowledge in the field of accounting and tax. Possible entry-level positions for this program include accounting clerk, accounts payable/receivable clerk, claims clerk, credit clerk, bookkeeper, accounting intern, or comparable positions. An Associate in Applied Science (AAS) in Accounting and a Certificate of Completion (CCL) in Enrolled Agent are also available.

Program Notes:

Students must earn a grade of C or better in all courses in the program.

+ indicates course has prerequisites and/or corequisites

Consultation with an Academic Advisor is recommended for course selection.

Program Prerequisites: None.

Required Courses (24-27 Credits):

ACC111 Accounting Principles I (3) AND

+ ACC230 Uses of Accounting Information I (3) AND

+ ACC240 Uses of Accounting Information II (3)

OR

ACC111 Accounting Principles I (3) AND

+ ACC112 Accounting Principles II (3) AND

+ ACC212 Managerial Accounting (3)

OR

ACC211 Financial Accounting (3) AND

+ ACC212 Managerial Accounting (3) 6-9

ACC105 Payroll, Sales and Property Taxes (3) OR

+ ACC222 Payroll Accounting (3) 3

ACC121 Individual Tax Preparation (3) OR

+ ACC221 Tax Accounting (3) 3

ACC115 Computerized Accounting 3

CIS114DE Excel Spreadsheet 3
CIS105 Survey of Computer Information Systems 3
GBS151 Introduction to Business 3

MCCCD Governing Board Approval Date: November 26, 2019

Air Conditioning and Electrical Accessories

5435 - Certificate of Completion (CCL) - (18 Credits)

Field of Interest: **Applied Technology**

For Information: Larry Bruce Martz

Phone: 602-286-8643

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/air-conditioning-and-electrical-accessories-5435-ccl>

Description:

The Certificate of Completion (CCL) in Air Conditioning and Electrical Accessories should prepare students to enter the automotive air conditioning/electrical service areas of the industry. Modern laboratory facilities, fully equipped with the latest equipment, may provide students with excellent opportunities for pre-employment experience.

Program Notes:

Students must earn a grade of "C" or better in all courses within the program.

+ indicates course has prerequisites and/or corequisites.

Program Prerequisites: None

Required Courses (18 Credits):

AUT103AA Automotive Electrical Systems 6

+ AUT107AD Automotive Air Conditioning 4

AUT130 Automotive Quick Service 4

+ AUT215AA Automotive and Electrical/Electronic Systems II 4

MCCCD Governing Board Approval Date: October 25, 2016

Amazon Web Services Cloud Associate

5330N - Certificate of Completion (CCL) - (3-6 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/amazon-web-services-cloud-associate-5330n-ccl>

Description:

The Certificate of Completion (CCL) in Amazon Web Services (AWS) Cloud Associate builds the knowledge and skills to design, plan, and implement a cloud solution architecture. Students will be introduced to concepts and hands-on opportunities to manage cloud systems/architectures for real world-applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the AWS Certified Solutions Architect – Associate examination, which is the second level of the AWS certifications.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: BPC, CIS, CLD, CNT, ITS, and MST.

Students must earn a grade of C or better for all courses required within the program.

Program Prerequisites: None

Required Courses (3-6 Credits):

CLD110 Amazon Web Services Cloud Foundations (3)

OR

Certificate of Completion in Amazon Web Services Cloud Practitioner (5141N) (3)

OR

AWS Certified Cloud Practitioner certification badge (0)

OR

Permission of Program Director (0) 0-3

+ CLD120 Amazon Web Services Cloud Architect Associate 3

MCCCD Governing Board Approval Date: June 22, 2021

[Amazon Web Services Cloud Practitioner](#)

5141N - Certificate of Completion (CCL) - (3 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/amazon-web-services-cloud-practitioner-5141n-ccl>

Description:

The Certificate of Completion (CCL) in Amazon Web Services Cloud Practitioner builds the practical knowledge and skills of cloud computing. Cloud computing provides reliable, scalable, secure, and flexible technology solutions for personal and business use. This CCL will introduce students new to or interested in cloud computing to the fundamental concepts of cloud services as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Amazon Web Services (AWS) Certified Cloud Practitioner exam, which is the first level of the AWS certification.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information.

Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (3 Credits):

CLD110 Amazon Web Services Cloud Foundations 3

MCCCD Governing Board Approval Date: February 23, 2021

[Amazon Web Services Cloud Specialist](#)

5331N - Certificate of Completion (CCL) - (3-9 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/amazon-web-services-cloud-specialist-5331n-ccl>

Description:

The Certificate of Completion (CCL) in Amazon Web Services (AWS) Cloud Specialist builds the requisite knowledge and skills to perform core Amazon Web Services (AWS) services in a manner that is based on compute, data, security and requirements as well as AWS best practices. Students select a specialization in either Developer or SysOps. Developer focuses on developing, deploying and debugging cloud based applications using AWS. SysOps focuses on deploying, managing and operating scalable, highly available, and fault tolerant systems on AWS.

Students will have hands-on opportunities to manage cloud systems/architectures for real world-scenarios. Students with the requisite prior experience in the field who complete this CCL can pursue employment in a variety of information technology jobs.

This CCL also helps to prepare students for industry-standard certification as either AWS Certified Developer - Associate or AWS Certified SysOps Administrator - Associate based on their emphasis.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the CCL to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students must earn a grade of C or better for all courses required within the program.

Program Prerequisites: None

Required Courses (3-9 Credits):

CLD110 Amazon Web Services Cloud Foundations (3) OR

AWS Cloud Practitioner Certification (0) OR

Permission of Program Director (0) 0-3

+ CLD120 Amazon Web Services Cloud Architect Associate (3) OR

AWS Certified Solutions Architect - Associate certification (0) OR

Permission of Program Director (0) 0-3

Complete all courses in the specialization below that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor.

Specialization 1: AWS Certified Developer - Associate

+ CLD130 Amazon Web Services Cloud Developing 3

Specialization 2: AWS Certified SysOps Administrator - Associate

+ CLD140 Amazon Web Services Cloud Operations 3

MCCCD Governing Board Approval Date: June 22, 2021

[Android App Development](#)

5834N - Certificate of Completion (CCL) - (9-12 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/android-app-development-5834n-ccl>

Description:

The Certificate of Completion (CCL) in Android App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on Android mobile apps. This CCL will help prepare students to take the Associate Android Developer industry certification. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificate of Completion (CCL) in Mobile App Development, and Certificate of Completion (CCL) in Native Mobile App Development.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students should consult with a Department Advisor in arranging their schedules.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (9-12 Credits):

CIS105 Survey of Computer Information Systems (3) OR

Permission of Program Director, Department or Division Chair (0) 0-3

+ CIS150 Programming Fundamentals (3) OR

+ CIS150AB Object-Oriented Programming Fundamentals (3) OR

+ CIS156 Python Programming: Level I (3) OR

+ CIS159 Visual Basic Programming I (3) OR

+ CIS162AD C# Level I (3) OR

+ CIS163AA Java Programming: Level I (3) 3

CIS150 or CIS150AB recommended for students with no programming experience or who plan to complete the AAS 3099 or CCL 5193 in Mobile App Development.

+ CIS165DA Introduction to Android Application Development 3

+ CIS265DA Advanced Android Application Development 3

MCCCD Governing Board Approval Date: December 10, 2019

[Automotive Automatic Transmission and Transaxle](#)

5930N - Certificate of Completion (CCL) - (4 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-automatic-transmission-and-transaxle-5930n-ccl>

Description:

The Certificate of Completion (CCL) in Automotive Automatic Transmission and Transaxle provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of automatic transmission and transaxle. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A2 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses (4 Credits):

ASE120 Automatic Transmission and Transaxle (4) OR
ASE120AU Automatic Transmission and Transaxle (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Brake Systems

5936N - Certificate of Completion (CCL) - (4 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-brake-systems-5936n-ccl>

Description:

The Certificate of Completion (CCL) in Automotive Brake Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of brake systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A5 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses (4 Credits):

ASE150 Automotive Brake Systems (4) OR
ASE150AU Automotive Brake Systems (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Chassis

5952 - Certificate of Completion (CCL) - (16 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-chassis-5952-ccl>

Description:

The Certificate of Completion (CCL) in Automotive Chassis provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of suspension, steering, brakes and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A4, A5 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None**Required Courses (16 Credits):**

ASE140 Automotive Steering, Suspension and Alignment (4) OR
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR
ASE150AU Automotive Brake Systems (4) 4

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Drive Train

5950 - Certificate of Completion (CCL) - (16 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-drive-train-5950-cc>

Description:

The Certificate of Completion (CCL) in Automotive Drive Train provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of automatic and manual transmissions and drivetrains and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A2, A3 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses (16 Credits):

ASE120 Automatic Transmission and Transaxle (4) OR
ASE120AU Automatic Transmission and Transaxle (4) 4

ASE130 Manual Drive Trains and Axles (4) OR
ASE130AU Manual Drive Trains and Axles (4) 4

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

**[Automotive Electrical, Heating, Ventilation and Air Conditioning Systems](#)
5948N - Certificate of Completion (CCL) - (12 Credits)**

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-electrical-heating-ventilation-and-air-conditioning-systems-5948n-cc>

Description:

The Certificate of Completion (CCL) in Automotive Electrical, Heating, Ventilation and Air Conditioning Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of electrical systems and heating, ventilation and air conditioning. The

curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A7 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for each course listed in the Required Courses area.

This program replaces: CCL/5860 Automotive Heating, Ventilation and Air Conditioning (HVAC)

Program Prerequisites: None

Required Courses (12 Credits):

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR
ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Electronic/Electrical Systems

5938N - Certificate of Completion (CCL) - (8 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-electronicelectrical-syst-ems-5938n-ccl>

Description:

The Certificate of Completion (CCL) in Automotive Electronic/Electrical Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of electronic/electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A6 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for each course listed in the Required Courses area.

This program replaces: CCL/5449 Automotive Electrical Systems

Program Prerequisites: None

Required Courses (8 Credits):

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Engine and Operations Management **5942N - Certificate of Completion (CCL) - (8 Credits)**

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-engine-and-operations-management-5942n-ccl>

Description:

The Certificate of Completion (CCL) in Automotive Engine and Operations Management provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine performance. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A8 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses (8 Credits):

ASE180 Introduction to Engine Management (4) OR
ASE180AU Introduction to Engine Management (4) 4

ASE280 Engine Management (4) OR
ASE280AU Engine Management (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Engine Repair

5928N - Certificate of Completion (CCL) - (6 Credits)

Field of Interest: Applied Technology

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-engine-repair-5928n-ccl>

Description:

The Certificate of Completion (CCL) in Automotive Engine Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine repair. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A1 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses (6 Credits):

ASE100 Introduction to Automotive Service 2

ASE110 Engine Fundamentals 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Engine Management and Repair

5954 - Certificate of Completion (CCL) - (22 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-engine-management-and-repair-5954-ccl>

Description:

The Certificate of Completion (CCL) in Automotive Engine Management and Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine repair and performance and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A1, A6 and A8 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None**Required Courses (22 Credits):**

ASE100 Introduction to Automotive Service 2

ASE110 Engine Fundamentals (4) OR
ASE110AU Engine Fundamentals (4) 4

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

ASE180 Introduction to Engine Management (4) OR
ASE180AU Introduction to Engine Management OR (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4

ASE280 Engine Management (4) OR
ASE280AU Engine Management (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Heating, Ventilation and Air Conditioning Systems

5940N - Certificate of Completion (CCL) - (4 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-heating-ventilation-and-air-conditioning-systems-5940n-ccl>

Description:

The Certificate of Completion (CCL) in Automotive Heating, Ventilation and Air Conditioning (HVAC) Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of HVAC systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A7 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses (4 Credits):

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR
ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Maintenance and Light Repair**5946 - Certificate of Completion (CCL) - (22 Credits)**

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-maintenance-and-light-repair-5946-cc/>

Description:

The Certificate of Completion (CCL) in Automotive Maintenance and Light Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of basic electrical and mechanical maintenance and repair. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

Students must earn a grade of C or better for each course listed in the Required Courses area.

This program replaces:

CCL/5597N Workforce Development: Automotive Technology Level II

CCL/5856 Automotive Maintenance and Light Repair

Program Prerequisites: None**Required Courses (22 Credits):**

ASE100 Introduction to Automotive Service 2

ASE140 Automotive Steering, Suspension and Alignment (4) OR
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR
ASE150AU Automotive Brake Systems (4) 4

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR
ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

ASE180 Introduction to Engine Management (4) OR
ASE180AU Introduction to Engine Management (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Manual Drive Train and Axles

5932N - Certificate of Completion (CCL) - (4 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-manual-drive-train-and-axles-5932n-ccl>

Description:

The Certificate of Completion (CCL) in Automotive Manual Drive Train and Axles provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of manual drive train and axles. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A3 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses (4 Credits):

ASE130 Manual Drive Trains and Axles (4) OR

ASE130AU Manual Drive Trains and Axles (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Service

5956 - Certificate of Completion (CCL) - (45-48 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-service-5956-ccl>

Description:

The Certificate of Completion (CCL) in Automotive Service prepares individuals to apply technical knowledge and skills to repair, service, and maintain automobiles. Instruction is in both the theoretical

and practical aspects of automotive repair, service and maintenance, and includes brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air conditioning systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile Certification Tests (A1 - A8).

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses (42 Credits):

ASE100 Introduction to Automotive Service 2

ASE110 Engine Fundamentals (4) OR
ASE110AU Engine Fundamentals (4) 4

ASE120 Automatic Transmission and Transaxle (4) OR
ASE120AU Automatic Transmission and Transaxle (4) 4

ASE130 Manual Drive Trains and Axles (4) OR
ASE130AU Manual Drive Trains and Axles (4) 4

ASE140 Automotive Steering, Suspension and Alignment (4) OR
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR
ASE150AU Automotive Brake Systems (4) 4

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR
ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

ASE180 Introduction to Engine Management (4) OR
ASE180AU Introduction to Engine Management (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4

ASE280 Engine Management (4) OR
ASE280AU Engine Management (4) 4

Restricted Electives (3-8 Credits):

+ ASE240 Advanced Driver Assistance Systems 2
+ ASE265 Introduction to Electric and Hybrid Vehicles 2

ASE290++ Automotive Service Internship (any suffixed courses) 1-4
ASE296++ Cooperative Education (any suffixed courses) 1-4
ASE298++ Special Projects (any suffixed courses) 1-3

MCCCD Governing Board Approval Date: February 28, 2023

Automotive Steering and Suspension

5934N - Certificate of Completion (CCL) - (4 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/automotive-steering-and-suspension-5934n-cc/>

Description:

The Certificate of Completion (CCL) in Automotive Steering and Suspension provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of steering and suspension. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A4 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses (4 Credits):

ASE140 Automotive Steering, Suspension and Alignment (4) OR
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

MCCCD Governing Board Approval Date: February 28, 2023

Banking and Finance

5627 - Certificate of Completion (CCL) - (27 Credits)

Field of Interest: **Business, Entrepreneurialism and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/banking-and-finance-5627-cc/>

Description:

The Certificate of Completion (CCL) in Banking and Finance program has been developed for entry or advancement in the banking profession. The program is designed to prepare students for the many challenges of the world of finance, since the role of the modern banker today demands specialized knowledge, flexible job performance, and customer service expertise. An Associate in Applied Science (AAS) in Banking and Finance is available.

Program Notes:

+ indicates course has prerequisite and/or corequisite.

Students must earn a grade of C or better in all courses within the program.

Program Prerequisites: None

Required Courses (27 Credits):

ACC111 Accounting Principles I 3

+ ACC112 Accounting Principles II 3

CIS105 Survey of Computer Information Systems 3

GBS103 Principles of Banking 3

GBS131 Business Calculations 3

GBS151 Introduction to Business 3

GBS205 Legal, Ethical, and Regulatory Issues in Business 3

GBS294 Consumer Credit 3

MGT126 Customer Service Skills and Strategies 3

MCCCD Governing Board Approval Date: October 22, 2019

Business Technology Specialist

5762 - Associate in Applied Science (AAS) - (22.5-23 Credits)

Field of Interest: **Business, Entrepreneurialism and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management>

Description:

The Certificate of Completion (CCL) in Business Technology Specialist emphasizes training on word processing, spreadsheet, database, and presentation software for business purposes. Completion of this certificate program which has as a prerequisite completion of the Office Technology Certificate would qualify an individual for secretarial, administrative assistant, or executive assistant positions.

Program Notes:

Students must earn a grade of "C" or better for all courses required within the program.

Program Prerequisites: None

Required Courses (19.5-20 Credits):

Certificate of Completion in Office Technology (5261) 18

+ BPC131DK Intermediate Word 1

CIS100 Internet: A Tool for Learning (0.5) OR

CIS133AA Internet/Web Development Level I-A (1) 0.5-1

Restricted Electives (3 Credits):

Student should select 3 credits from any BPC or CIS prefixed course. 3

MCCCD Governing Board Approval Date: 6-26-07

Carpenter Apprenticeship

5395 - Certificate of Completion (CCL) - (48-49 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/programs/journeymen>

Description:

The Certificate of Completion (CCL) in Carpenter Apprenticeship program is designed to provide knowledge and skills in the carpentry trade. These include concrete formwork, framing, exterior finish, interior finish, interior system, roof and basic metal framing, stair forms, bridge construction, and transit levels and lasers.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

This CCL is awarded ONLY to apprentices who have simultaneously enrolled with Southwest Carpenters Training Fund and GateWay Community College.

There is also a Prior Learning Assessment (PLA) option for journeymen who have completed any registered apprenticeship program in Carpentry. However, PLA will be awarded for degree-seeking students only, with verification of journeymen status and additional criteria. The credits will be awarded toward the AAS degree. The CCL will not be awarded for those pursuing PLA.

Admission Criteria: Admission to the program by the Apprenticeship Coordinator.

Program Prerequisites: None

Required Courses (36 Credits):

- + CRP101 Orientation - Carpenter Apprenticeship 3
- + CRP102 Safety/Health Certifications for Carpentry - Carpenter Apprenticeship 3
- + CRP103 Tool and Equipment Applications - Carpenter Apprenticeship 3
- + CRP104 Basic Wall Framing - Carpenter Apprenticeship 3
- + CRP108 Moldings and Trim - Carpenter Apprenticeship 3
- + CRP113 Basic Roof Framing - Carpenter Apprenticeship 3
- + CRP121 Print Reading for Carpenters - Carpenter Apprenticeship 3
- + CRP123 Wall Forming - Carpenter Apprenticeship 3

- + CRP124 Foundations and Flatwork - Carpenter Apprenticeship 3
- + CRP131 Commercial Floor Framing - Carpenter Apprenticeship 3
- + CRP232 Stair and Ramp Forming - Carpenter Apprenticeship 3
- + CRP234 Transit Level/Laser - Carpenter Apprenticeship 3

Credits: 36

Restricted Electives

Students should select twelve (12) to thirteen (13) credits from the following courses in consultation with the Apprenticeship Program Coordinator:

- + CRP102AJ Tilt Up Construction I - Carpenter Apprenticeship 1
- + CRP106AK Interior Systems: Suspended Lay-In Ceilings - Carpenter Apprenticeship 3
- + CRP130 Basic Commercial Framing - Carpenter Apprenticeship 3
- + CRP150 Acoustical Ceilings - Carpenter Apprenticeship 3
- + CRP151 Standard Acoustical Grids - Carpenter Apprenticeship 3
- + CRP152 Acoustical Soffits - Carpenter Apprenticeship 3
- + CRP153 Concealed Glue-Up/Staple-Up Systems - Carpenter Apprenticeship 3
- + CRP154 Metal Pan and Security Systems - Carpenter Apprenticeship 3
- + CRP160 Basic Lathing - Carpenter Apprenticeship 3
- + CRP163 Framing Ceilings and Soffits - Carpenter Apprenticeship 3
- + CRP164 Basic Hand Finishing - Carpenter Apprenticeship 3
- + CRP165 Framing Curves and Arches - Carpenter Apprenticeship 3
- + CRP166 Automatic Finishing Tools - Carpenter Apprenticeship 3
- + CRP167 Exterior Insulation Finish Systems - Carpenter Apprenticeship 3
- + CRP202 Basic Stairs - Carpenter Apprenticeship 3
- + CRP207 Solar Installer Level I - Carpenter Apprenticeship 2
- + CRP211 Storefront Installations - Carpenter Apprenticeship 3
- + CRP212AC Rigging - Carpenter Apprenticeship 2
- + CRP214AA Drywall Applications - Carpenter Apprenticeship 2
- + CRP215 Drywall/Acoustical Ceilings - Carpenter Apprenticeship 3
- + CRP216 Designer and Specialty Trims - Carpenter Apprenticeship 3
- + CRP217 Drywall Installation/Finish Trims - Carpenter Apprenticeship 3
- + CRP221 Advanced Print Reading - Carpenter Apprenticeship 2
- + CRP222 Bridge Construction - Carpenter Apprenticeship 3
- + CRP226 Air, Moisture, and Thermal Barriers - Carpenter Apprenticeship 3
- + CRP227 Green Building and Weatherization - Carpenter Apprenticeship 2
- + CRP228 Water Treatment Facilities - Carpenter Apprenticeship 3
- + CRP233 Basic Metal Framing - Carpenter Apprenticeship 3
- + CRP235 Advanced Metal Framing - Carpenter Apprenticeship 3
- + CRP242 Doors/Door Hardware - Carpenter Apprenticeship 3
- + CRP244 Cabinet Installation - Carpenter Apprenticeship 3
- + CRP250 Pre-Fab/Sound Panels - Carpenter Apprenticeship 3
- + CRP251 Advanced Acoustical Ceilings Layout - Carpenter Apprenticeship 3
- + CRP252 Advanced Acoustical Ceiling Installations - Carpenter Apprenticeship 3
- + CRP253 Framing Curves and Arches - Carpenter Apprenticeship 3

- + CRP255 Fire Stopping/Fire Proofing Procedures - Carpenter Apprenticeship 3
- + CRP260 Advanced Lathing - Carpenter Apprenticeship 3
- + CRP261 Free-Form Lathing - Carpenter Apprenticeship 3
- + CRP263 Ceiling and Soffit Finishing - Carpenter Apprenticeship 3
- + CRP264 Advanced Hand Finishing - Carpenter Apprenticeship 3
- + CRP267 Wet Wall Finishes - Carpenter Apprenticeship 3
- + CRP268 Decorative Trims - Carpenter Apprenticeship 3
- + CRP280 Total Station (Robotics) - Carpenter Apprenticeship 3
- + WLD215 Welding Fabrication 3
- + WLD215AA Weld Fabrication I for Millwrighting 2
- + WLD215AB Weld Fabrication II for Millwrighting 2

MCCCD Governing Board Approval Date: May 23, 2023

Cisco Certified Network Professional: Enterprise 5190 - Certificate of Completion (CCL) - (16 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/cisco-certified-network-professional-enterprise-5190-ccl>

Description:

The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise builds the advanced knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes fundamental concepts of virtualization, network assurance, security, automation, and the implementation and troubleshooting of advanced routing technologies, as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Cisco Enterprise Network Core Technologies (ENCOR) certification and Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) exams aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core, CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications.

Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise Core, Cisco Certified Network Professional: Enterprise Advanced Routing and Services, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes:

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area in professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information.

Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Admission Criteria:

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a C or better OR have a Cisco Certified Network Associate (CCNA) industry certification OR receive permission of the Program Director:

CNT140AB Introduction to Networks 4

+ CNT150AB Switching, Routing, and Wireless Essentials 4

+ CNT160AB Enterprise Networking, Security, and Automation 4

Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.

Program Prerequisites: None

Required Courses (16 Credits):

+ CNT240 Cisco Certified Network Professional: Enterprise Core (8) OR

+ CNT240AA Cisco Certified Network Professional: Enterprise Core I (4) AND

+ CNT240AB Cisco Certified Network Professional: Enterprise Core II (4) 8

+ CNT250 Cisco Certified Network Professional: Enterprise Advanced Routing and Services (8) OR

+ CNT250AA Cisco Certified Network Professional: Enterprise Advanced Routing and Services I (4)
AND

+ CNT250AB Cisco Certified Network Professional: Enterprise Advanced Routing and Services II (4) 8

MCCCD Governing Board Approval Date: June 23, 2020

[Cisco Certified Network Professional: Enterprise Advanced Routing and Services](#)

5187N - Certificate of Completion (CCL) - (8 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/cisco-certified-network-professional-enterprise-advanced-routing-and-services-5187n-ccl>

Description:

The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise Advanced Routing and Services builds the advanced knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes concepts of implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services, as well as hands-on opportunities to apply these

concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise Core, Cisco Certified Network Professional: Enterprise, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area of professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information.

Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Admission Criteria:

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a C or better OR have a Cisco Certified Network Associate (CCNA) industry certification OR receive permission of the Program Director:

- CNT140AB Introduction to Networks 4
- + CNT150AB Switching, Routing, and Wireless Essentials 4
- + CNT160AB Enterprise Networking, Security, and Automation 4

Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.

Program Prerequisites: None

Required Courses (8 Credits):

- + CNT250 Cisco Certified Network Professional: Enterprise Advanced Routing and Services (8) OR
 - + CNT250AA Cisco Certified Network Professional: Enterprise Advanced Routing and Services I (4)
- AND
- + CNT250AB Cisco Certified Network Professional: Enterprise Advanced Routing and Services II (4) 8

MCCCD Governing Board Approval Date: June 23, 2020

**[Cisco Certified Network Professional: Enterprise Core](#)
5189N - Certificate of Completion (CCL) - (8 Credits)**

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/cisco-certified-network-professional-enterprise-core-5189n-ccl>

Description:

The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise Core builds the knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes the fundamental concepts of virtualization, network assurance, security, and automation, as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications.

Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise, Cisco Certified Network Professional: Enterprise Core and Advanced Routing and Services, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area of professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information.

Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Admission Criteria:

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a C or better OR have a Cisco Certified Network Associate (CCNA) industry certification OR receive permission of the Program Director:

- CNT140AB Introduction to Networks 4
- + CNT150AB Switching, Routing, and Wireless Essentials 4
- + CNT160AB Enterprise Networking, Security, and Automation 4

Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.

Program Prerequisites: None

Required Courses (8 Credits):

- + CNT240 Cisco Certified Network Professional: Enterprise Core (8) OR
- + CNT240AA Cisco Certified Network Professional: Enterprise Core I (4) AND
- + CNT240AB Cisco Certified Network Professional: Enterprise Core II (4) 8

MCCCD Governing Board Approval Date: June 23, 2020

Cisco Network Administration and Security

5036 - Certificate of Completion (CCL) - (16-19 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/cisco-network-administration-and-security-5036-ccl>

Description:

The Certificate of Completion (CCL) in Cisco Network Administration and Security provides training for those interested in working with Cisco network and Internet hardware with a particular emphasis on securing networks from threats and vulnerabilities. Knowledge and skills are developed to install, configure, and maintain Cisco routers and switches; configure routing protocols, and Local Area Networks (LANs); troubleshoot problems with various hardware and software configurations; perform administrative tasks in a network. Specific skills in maintaining integrity, accountability, and confidentiality of data are also developed. Taught by Cisco Certified professionals using the Cisco Network Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) and Security examinations. Students who complete this program may seek employment in a variety of environments. An additional Certificate of Completion (CCL) in Cisco Certified Network Professional (CCNP), as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None**Required Courses (16-19 Credits):**

- CIS105 Survey of Computer Information Systems (3) OR
- Permission of the Program Director (0) 0-3

- CNT140AB Introduction to Networks 4
- + CNT150AB Switching, Routing, and Wireless Essentials 4
- + CNT160AB Enterprise Networking, Security, and Automation 4

- + CNT202 Cisco Secure Firewall Appliance Configuration (4) OR
- + CNT205 Cisco Certified Network Associate Security (4) 4

MCCCD Governing Board Approval Date: December 10, 2019

Cisco Network Administration: CCNA **5969N - Certificate of Completion (CCL) - (12-15 Credits)**

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/cisco-network-administration-ccna-5969n-cc>

Description:

The Certificate of Completion (CCL) in Cisco Network Administration: CCNA provides training for those interested in working with network and Internet hardware. Knowledge and skills are developed to install, configure, and maintain Cisco routers and switches; configure advanced routing protocols, and Local Area Networks (LANs); troubleshoot hardware and software configurations; perform administrative tasks in a network. Taught by Cisco Certified professionals using the Cisco Networking Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) examination. Students who complete this program may seek employment in a variety of environments. Additional Certificates of Completion (CCLs) in Cisco Network Administration and Security and Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces: CCL/5967 Networking Technology: Cisco

Program Prerequisites: None

Required Courses (12-15 Credits):

CIS105 Survey of Computer Information Systems (3) OR
Permission of Program Director (0) 0-3

CNT140AB Introduction to Networks 4
+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4

MCCCD Governing Board Approval Date: May 24, 2022

CNC Machine Operator

5103N - Certificate of Completion (CCL) - (6 Credits)

Field of Interest: **Applied Technology**

For Information: David Zamora

Phone: 602-286-8656

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/cnc-machine-operator-5103n-cc>

Description:

The Certificate of Completion (CCL) in CNC Machine Operator prepares students for employment as entry level operators and technicians in the manufacturing industry. The program provides applied skills in the operation of manual/Computer Numeric Control (CNC) machines for current and future needs of the manufacturing industry. Certificates of Completion (CCLs) in CNC Machining I and CNC Machining II and an Associate in Applied Science (AAS) in Manufacturing Production Technology are also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Program Prerequisites: None

Required Courses (6 Credits):

MPT130 CNC Machine Operator (6) OR

MPT130MP CNC Machine Operator (6) 6

MCCCD Governing Board Approval Date: November 26, 2019

CNC Machining I

5100 - Certificate of Completion (CCL) - (25 Credits)

Field of Interest: **Applied Technology**

For Information: David Zamora

Phone: 602-286-8656

<https://www.gatewaycc.edu/degrees-certificates/manufacturing>

Description:

The Certificate of Completion (CCL) in CNC Machining I prepares students for employment as entry-level operators and technicians in the manufacturing industry. The program provides applied skills in process planning, quality control, set-up and operation of manual/Computer Numeric Control (CNC) machines for current and future needs of the manufacturing industry. This program introduces students to manual data programming and Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM). A CCL in CNC Machining II and an Associate in Applied Science (AAS) in Manufacturing Production Technology are also available.

Program Notes:

The Certificate of Completion in CNC Machining I is currently not Title IV Federal Financial Aid eligible.

Students must earn a grade of C or better in all courses within the program.

This program replaces:

CCL/5440 Production Technology: CNC Technology

CCL/5616 CNC Machining I

Program Prerequisites: None

Required Courses (25 Credits):

MPT101 Technical Documentation (3) OR

MPT101MP Technical Documentation (3) 3

MPT110 Inspection Techniques (3) OR

MPT110MP Inspection Techniques (3) 3

MPT111 Geometric Dimensioning and Tolerance (GDT) (3) OR

MPT111MP Geometric Dimensioning and Tolerance (GDT) (3) 3

+ MPT113 Coordinate Measuring Machines I (3) OR

+ MPT140 Manual CNC Programming (3) 3

MPT120 Introduction to Manual Machining (4) OR

MPT120MP Introduction to Manual Machining (4) 4

MPT130 CNC Machine Operator (6) OR

MPT130MP CNC Machine Operator (6) OR

MPT131 CNC Machining Level I (6) 6

MPT131MP CNC Machining Level I (6) 6

+ MPT132 CNC Machining Level II (3) OR

+ MPT132MP CNC Machining Level II (3) 3

MCCCD Governing Board Approval Date: November 26, 2019

[CNC Machining II](#)

5102 - Certificate of Completion (CCL) - (43-44 Credits)

Field of Interest: **Applied Technology**

For Information: David Zamora

Phone: 602-286-8656

<https://www.gatewaycc.edu/degrees-certificates/manufacturing>

Description:

The Certificate of Completion (CCL) in CNC Machining II prepares students for advanced employment opportunities as operators and technicians in the manufacturing industry. The program provides applied skills in process design as well as advanced knowledge in quality control, Computer Numeric Control (CNC), and Computer Aided-Design/Computer-Aided Manufacturing (CAD/CAM) programming for current and future needs of the manufacturing industry. An Associate in Applied Science (AAS) in Manufacturing Production Technology is also available.

Program Notes:

The Certificate of Completion in CNC Machining II is currently not Title IV Federal Financial Aid eligible.

Students must earn a grade of C or better in all courses within the program.

This program replaces:

CCL/5647 CNC Machining II

CCL/5795 CAM Systems Programming

Program Prerequisites: None

Required Courses (37 Credits):

Required Courses for CCL in CNC Machining I - Credits: 25

MPT101 Technical Documentation (3) OR

MPT101MP Technical Documentation (3) 3

MPT110 Inspection Techniques (3) OR

MPT110MP Inspection Techniques (3) 3

MPT111 Geometric Dimensioning and Tolerance (3) OR

MPT111MP Geometric Dimensioning and Tolerance (3) 3

MPT113 Coordinate Measuring Machines I (3) OR

MPT140 Manual CNC Programming (3) 3

MPT120 Introduction to Manual Machining (4) OR

MPT120MP Introduction to Manual Machining (4) 4

MPT130 CNC Machine Operator (6) OR

MPT130MP CNC Machine Operator (6) OR

MPT131 CNC Machining Level I (6) OR

MPT131MP CNC Machining Level I (6) 6

+ MPT132 CNC Machining Level II (3) OR

+ MPT132MP CNC Machining Level II (3) OR 3

Required Courses for CCL in CNC Machining II - Credits: 12

Students interested in taking MPT250 are advised to take MPT151

MPT150 Introduction to SolidWorks (3) OR

+ MPT151 Solid Design I: SolidWorks (3) 3

+ MPT260 Computer Aided Manufacturing (CAM) I (3) OR

+ MPT260MP Computer Aided Manufacturing (CAM) I (3) 3

+ MPT262 Computer Aided Manufacturing (CAM) II (3) OR

+ MPT262MP Computer Aided Manufacturing (CAM) II (3) 3

+ MPT270 Tooling, Fixtures, and Gauges 3

Restricted Electives (6-7 Credits):

Students should complete 6-7 credits from the category below that best aligns with their academic and professional goals.

Quality and Inspection:

MPT215 Workplace Quality Systems 3

+ MPT216 Applied Statistical Process Control Methods 3

+ MPT217 Lean and Six Sigma Applied Concepts 3

Industrial Design:

+ MPT152 Solid Design: Certified SolidWorks Associate/Certified SolidWorks Professional Test Preparation 1

+ MPT250 Solid Design II: Advanced Part Modeling: SolidWorks 3

+ MPT255 Solid Design 3D Printing 4

+ MPT261 MasterCam Certified Programmer Mill Level I: Test Preparation: CPgM1 1

Manual Machining:

MPT220 Manual Machining: NIMS Level I Certification 3

MPT221 Manual Machining: NIMS Level II Certification 3

Related Experience:

AIT100 Industrial Safety 1

AIT105 Modern Maintenance Operations 3

+ MPT282++ Volunteerism for Manufacturing: A Service Learning Experience 1-3

+ MPT290++ Manufacturing Production Internship Fall 1-3

+ MPT296++ Cooperative Education 1-4

WLD101 Welding I 3

MCCCD Governing Board Approval Date: November 26, 2019

[Computed Tomography](#)

5461 - Certificate of Completion (CCL) - (19-21 Credits)

Field of Interest: **Health Sciences**

For Information: Tabatha Hatfield

Phone: 602-286-8483

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/computed-tomography-5461-ccl>

Description:

The Certificate of Completion (CCL) in Computed Tomography program offers graduate Radiologic Technologists, Radiation Therapists, and graduate Nuclear Medicine Technologists the opportunity to complete both didactic coursework and clinical skills experience necessary to prepare to meet eligibility for the professional certification in this field. The program focuses on specific skills and knowledge necessary to become proficient in this field.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

When selected as part of program completion, the following introductory courses must be completed, to be added to the queue of those waiting for an available cohort space to begin the core curriculum: DMI/DMS/ICE220, NUC220, DMI/ICE223, NUC250

Admission Criteria:

1. Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy, OR Certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine.
2. Formal application and admission to the program by the Program Coordinator.
3. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
4. Clinical health and safety requirements must be met prior to enrollment in any program of study course. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy and drug testing protocols.
5. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes or during the program may result in cancellation of enrollment.
6. There are limited spaces available in the Computed Tomography program. Only students who have completed all of the introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

Program Prerequisites: None

Required Courses (19-21 Credits):

+ DMI/DMS/ICE220 Sectional Anatomy (3) OR

+ NUC220 Sectional Anatomy for Nuclear Medicine (3) 3

+ DMI/ICE223 Introduction to Computed Tomography (1) OR

+ NUC250 Fundamentals of Computed Tomography and Elements of Magnetic Resonance Imaging (3) 1-3

- + ICE248 Computed Tomography (CT) Multi-Planar Sectional Anatomy 2
- + ICE254 Advanced Imaging Practicum 1
- + ICE263 Computed Tomography Physics and Instrumentation 3
- + ICE265 Computed Tomography Procedure Protocols 3
- + ICE267 Computed Tomography Advanced Imaging Practicum 2
- + ICE273 Computed Tomography Pathology 3
- + ICE291 Computed Tomography Registry and Board Exam Preparation 1

MCCCD Governing Board Approval Date: December 14, 2021

Computer Information Systems

5671 - Certificate of Completion (CCL) - (21 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/computer-information-systems-5671-ccl>

Description:

The Certificate of Completion (CCL) in Computer Information Systems program is designed to meet the needs of students who are planning to find employment using current computer applications. It is intended for students who may later want to pursue an Associate's Degree in Computer Information Systems, but who do not expect to go beyond the community college program. Students will get experience with a variety of operating systems, database management, and popular programming languages. An Associate in Applied Science (AAS) is also available.

Program Notes:

Students must earn a grade of C or better in all courses required within the program.

Consultation with an Academic Advisor is recommended for course selection.

Program Prerequisites: None

Required Courses (12 Credits):

CIS105 Survey of Computer Information Systems 3

CIS133DA Internet/Web Development Level I 3

CIS126DA UNIX Operating System (3) OR

CIS126DL Linux Operating System (3) OR

+ MST150++ Any Microsoft Windows course (3) 3

+ CIS150 Programming Fundamentals (3) OR

+ CIS150AB Object-Oriented Programming Fundamentals (3) 3

Restricted Electives (9 Credits):

CIS+++ Any CIS Computer Information Systems course(s) except courses used to satisfy Required Courses area.

MCCCD Governing Board Approval Date: June 27, 2017

Computer System Configuration and Support **5038N - Certificate of Completion (CCL) - (6-9 Credits)**

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/computer-system-configuration-and-support-5038n-cc>

Description:

The Certificate of Completion (CCL) in Computer System Configuration and Support program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs. The classes focus on the development of knowledge and skills in computer technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on hardware installation, maintenance, mobile devices, hardware troubleshooting, proper use of tools, safety procedures, and professionalism. This program helps prepare students for the CompTIA A+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (6-9 Credits):

CIS105 Survey of Computer Information Systems (3) OR

Permission of program director (0) 0-3

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

MCCCD Governing Board Approval Date: November 26, 2019

Computer System Configuration and Support, Linux

5039N - Certificate of Completion (CCL) - (9-12 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/computer-system-configuration-and-support-linux-5039n-ccl>

Description:

The Certificate of Completion (CCL) in Computer System Configuration and Support, Linux program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on Linux. The classes focus on the development of knowledge and skills in computer and network technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on the Linux Operating system including knowledge and skills required to install, configure and troubleshoot a Linux-based workstation. This program helps prepare students for the CompTIA A+ and Linux+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (9-12 Credits):

CIS105 Survey of Computer Information Systems (3) OR
Permission of program director (0) 0-3

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3
+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS126DL Linux Operating System (3) OR

MCCCD Governing Board Approval Date: February 25, 2020

Computer System Configuration and Support, Network

5044N - Certificate of Completion (CCL) - (9-13 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/computer-system-configuration-and-support-network-5044n-ccl>

Description:

The Certificate of Completion (CCL) in Computer System Configuration and Support, Network program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on networking. The courses focus on the development of knowledge and skills in computer and network technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on elements of a data network, network components, and use of a network. This program helps prepare students for the CompTIA A+ and Network+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces: CCL/5909 Computer Hardware and Network Support

Program Prerequisites: None

Required Courses (9-13 Credits):

CIS105 Survey of Computer Information Systems (3) OR

Permission of program director (0) 0-3

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4

MCCCD Governing Board Approval Date: December 10, 2019

Computer System Configuration and Support, Security

5040N - Certificate of Completion (CCL) - (9-19 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/computer-system-configuration-and-support-security-5040n-cc>

Description: The Certificate of Completion (CCL) in Computer System Configuration and Support, Security program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on security. The courses focus on the development of knowledge and skills in computer and security technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on preventing, identifying, and mitigating threats to the security of information systems and utilizing the basic tools for information security. This program helps prepare participants for the CompTIA A+, Security+, and certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces: CCL/5841 Microsoft Technical Specialist

Program Prerequisites: None

Required Courses (9-19 Credits):

CIS105 Survey of Computer Information Systems (3) OR

Permission of Program Director (0) 0-3

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

Select from one of the following areas of specialization.

Specialization 1: Credits 3-6

+ CIS270 Essentials of Network and Information Security (3)

OR

+ ITS110 Information Security Fundamentals (3) AND

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) 3-6

Specialization 2: Credits 9-10

CNT140AB Introduction to Networks (4) OR

CIS190 Introduction to Networking (3) 3-4

CIS250 Management of Information Systems 3

+ CIS271DB Information Security Essentials 3

MCCCD Governing Board Approval Date: February 25, 2020

Construction Trades - Mechanical Trades: Pipefitting

5716 - Certificate of Completion (CCL) - (24-48 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/pipefitting-journeymen>

Description:

The Certificate of Completion (CCL) in Construction Trades - Mechanical Trades: Pipefitting program is designed to provide knowledge and skills in the residential, commercial, industrial, and institutional pipefitting trade. Course work includes safety, material selection, basic and advanced pipefitting calculations and principles of science. Students will also be competent in sources and treatment of public, private, and individual gas, water, heating, waste, and specialized pipefitting systems, cross connection protection, pipe identification, and blueprint reading. Course work also includes rigging, basic and advanced fabrication, pipe cutting, valves and specialized piping systems, cross connection protection, pipe identification, blueprint reading and pipefitting code. Additional related training will include basic electricity and troubleshooting.

Program Notes:

Students must earn a grade of "C" or better in all courses within the program.

+ indicates course has prerequisites and/or corequisites.

Program Accreditation/Certification or Licensure Information: Journeyman status through the Arizona Department of Commerce, Apprenticeship Services Division, U.S. Department of Labor, Bureau of Apprenticeship and Training.

Admission Criteria: Admission to the program by the following registered apprenticeship program: Interstate Mechanical Contractors, Inc.

Program Prerequisites: None

Required Courses (24-48 Credits):

Students should select from twenty-four (24) to forty-eight (48) credits from the following courses based on their apprenticeship standing upon program enrollment and in consultation with Apprenticeship Program Coordinator.

- + IMC112 Introduction to Mechanical Trades Construction 6
- + IMC114 Overview of Mechanical Trades: Sheet Metal, Pipefitting, Plumbing 6
- + IMC122 Multiple Trades cross Training: Tubes, Fittings and Piping Systems 6
- + IMC124 Multiple Trades Cross Training: Standards 6
- + IMC235 Mechanical Trades Construction: Pipefitting Intermediate Principles and Concepts 6
- + IMC238 Mechanical Trades Construction: Pipefitting Advanced Principles and Concepts 6
- + IMC245 Mechanical Trades Construction: Pipefitting Advanced Skill Building 6
- + IMC248 Mechanical Trades Construction: Pipefitting Advanced Applications and Techniques 6

MCCCD Governing Board Approval Date: November 24, 2015

Construction Trades - Mechanical Trades: Plumbing

5536 - Certificate of Completion (CCL) - (20-48 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/plumbing-journeymen>

Description:

The Certificate of Completion (CCL) in Construction Trades - Mechanical Trades: Plumbing program is designed to provide knowledge and skills in the residential, commercial, industrial, and institutional plumbing trade. Course work includes safety, material selection, installation of plumbing systems, basic and advanced plumbing calculations and principles of science. Students will also be competent in sources and treatment of public, private, and individual gas, water, heating, waste, and specialized piping systems, cross connection protection, blueprint reading and plumbing code. Additional related training will include basic electricity and troubleshooting related to the plumbing trade.

Program Notes:

Students must earn a grade of "C" or better in all courses within the program.

+ indicates course has prerequisites and/or corequisites.

Program Accreditation/Certification or Licensure Information:

Journeyman status through the Arizona Department of Commerce, Apprenticeship Services Division, U.S. Department of Labor, Bureau of Apprenticeship and Training.

Admission Criteria:

Registered apprentice status in the state of Arizona with a trade-specific sponsoring organization.

Program Prerequisites: None

Required Courses (20-48 Credits):

Students need to select the appropriate apprenticeship program option:

Option 1: Students should select from twenty-four (24) to forty-eight (48) credits from the following courses based on their apprenticeship standing upon program enrollment and in consultation with Interstate Mechanical Contractors, Inc. Apprenticeship Program Coordinator.

- +IMC112 Introduction to Mechanical Trades Construction 6
- +IMC114 Overview of Mechanical Trades: Sheet Metal, Pipefitting, Plumbing 6
- +IMC122 Multiple Trades cross Training: Tubes, Fittings and Piping Systems 6
- +IMC124 Multiple Trades Cross Training: Standards 6
- +IMC231 Mechanical Trades Construction: Plumbing Intermediate Principles and Concepts 6
- +IMC236 Mechanical Trades Construction: Plumbing Advanced Principles and Concepts 6
- +IMC241 Mechanical Trades Construction: Plumbing Advanced Skill Building 6
- +IMC246 Mechanical Trades Construction: Plumbing Advanced Applications and Techniques 6

Option 2: Students should select from twenty (20) to forty (40) credits from the following courses based on their apprenticeship standing upon program enrollment and in consultation with Metro Phoenix Plumbing, Heating and Cooling Contractors (MPHCC) Apprenticeship Program Coordinator.

- + MEC105 Residential and Industrial Plumbing I 5
- + MEC107 Residential and Industrial Plumbing II 5
- + MEC108 Residential and Industrial Plumbing III 5
- + MEC118 Residential and Industrial Plumbing IV 5
- + MEC205 Residential and Industrial Plumbing V 5
- + MEC207 Residential and Industrial Plumbing VI 5
- + MEC208 Residential and Industrial Plumbing VII 5
- + MEC218 Residential and Industrial Plumbing VIII 5

MCCCD Governing Board Approval Date: November 24, 2015

**[Construction Trades - Mechanical Trades: Sheet Metal
5545 - Certificate of Completion \(CCL\) - \(24-48 Credits\)](#)**

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/sheet-metal-journeymen>

Description:

The Certificate of Completion (CCL) in Construction Trades - Mechanical Trades: Sheet Metal program is designed to provide knowledge in the Sheet Metal trade which will enable the student to apply master skills as a sheet metal worker. Course work will include: safety, basic sheet metal principles, trade calculations, piping practices, blueprint reading, refrigeration fundamentals, mechanical systems and heat pumps. Students will be competent in fabrication, triangulation, gutters, downspouts, chimneys, insulation and moisture prevention. The Sheet Metal and Air Conditioning Contractors National Association's (SMACNA) manuals and standards will be supplemental materials used in the classroom. Additionally students will examine factors involved in estimating labor and materials, equipment and delivery.

Program Notes:

Students must earn a grade of "C" or better for all courses required within the program.

+ indicates course has prerequisites and/or corequisites.

Program Accreditation/Certification or Licensure Information:

Journeyman status through the Arizona Department of Commerce, Apprenticeship Services Division, U.S. Department of Labor, Bureau of Apprenticeship and Training.

Admission Criteria:

Admission to the program by the following registered apprenticeship program: Interstate Mechanical Corporation (IMCOR)

Program Prerequisites: None**Required Courses (24-48 Credits):**

Students should select from twenty-four (24) to forty-eight (48) credits from the following courses based on their apprenticeship standing upon program enrollment and in consultation with Apprenticeship Program Coordinator.

- + IMC112 Introduction to Mechanical Trades Construction 6
- + IMC114 Overview of Mechanical Trades: Sheet Metal, Pipefitting, Plumbing 6
- + IMC122 Multiple Trades cross Training: Tubes, Fittings and Piping Systems 6
- + IMC124 Multiple Trades Cross Training: Standards 6
- + IMC233 Mechanical Trades Construction: Sheet Metal Intermediate Principles and Concepts 6
- + IMC237 Mechanical Trades Construction: Sheet Metal Advanced Principles and Concepts 6
- + IMC243 Mechanical Trades Construction: Sheet Metal Advanced Skill Building 6
- + IMC247 Mechanical Trades Construction: Sheet Metal Advanced Applications and Techniques 6

MCCCD Governing Board Approval Date: November 24, 2015

[Cross-Platform App Development](#)**5067 - Certificate of Completion (CCL) - (18-21 Credits)**

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/cross-platform-app-development-5067-cc/>

Description:

The Certificate of Completion (CCL) in Cross-Platform App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on Windows Mobile apps and web apps. This CCL will help students prepare to take the Microsoft Technology Associate (MTA) Software Development Fundamentals C# certification. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificate of Completion (CCL) in Mobile App Development.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Program requirements for CCL/5833N Windows App Development and CCL/5835N Web App Development may be taken in the CCL/5067 Cross-Platform App Development.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (18-21 Credits):

CIS105 Survey of Computer Information Systems (3) OR
Permission of Program Director, Department or Division Chair (0) 0-3

+ CIS133DA Internet/Web Development Level I 3

+ CIS162AD C#: Level I 3

+ CIS165DB C#/VB.NET: Windows 8 App Development (3) OR

+ CIS165DC Xamarin/C# Cross Platform Development (3) 3

+ CIS166AA Introduction to JavaScripting 3

+ CIS233DA Internet/Web Development Level II 3

+ CIS262AD C# Level II 3

MCCCD Governing Board Approval Date: December 10, 2019

[Cyber Operations](#)

5165 - Certificate of Completion (CCL) - (41-42 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/cyber-operations-5165-cc/>

Description:

The Certificate of Completion (CCL) in Cyber Operations program is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security technologies and structured languages. The Cyber Operations program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. An Associate in Applied Science (AAS) in Cybersecurity is also available.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None**Required Courses (41-42 Credits):**

The following courses are required and included in CCL Cybersecurity Fundamentals.

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Microsoft Windows course (3) 3

CIS105 Survey of Computer Information Systems 3

CIS111 Ethics in Information Technology (3) OR
ITS120 Legal, Ethical and Regulatory Issues (3) 3

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

+ CIS156 Python Programming: Level I 3

+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4

+ ITS110 Information Security Fundamentals 3
+ ITS240 Ethical Hacking and Network Defense 3

The following courses are required in Cyber Operations

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ CIS238DL Linux System Administration (3) OR
+ CIS238RH Red Hat System Administration II (3) 3

+ CIS290AC Computer Information Systems Internship (3) OR
+ CIS298AC Special Projects (3) 3

+ ITS291 Computer Forensics Foundations 4

+ ITS292 Advanced Computer Forensics 4

MCCCD Governing Board Approval Date: December 10, 2019

Cybersecurity Fundamentals

5154 - Certificate of Completion (CCL) - (24-31 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/cybersecurity-fundamentals-5154-ccl>

Description:

The Certificate of Completion (CCL) in Cybersecurity Fundamentals is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to provide applied skills necessary for government and industry employees. The program covers a variety of information security technologies and structured languages. The Cybersecurity program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. An Associate in Applied Science (AAS) in Cybersecurity is also available.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces: CCL/5530 Information Technology: Network and Cyber Security

Program Prerequisites: None

Required Courses (24-31 Credits):

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Microsoft Windows course (3) 3

CIS105 Survey of Computer Information Systems 3

CIS111 Ethics in Information Technology (3) OR
ITS120 Legal, Ethical and Regulatory Issues (3) 3

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

+ CIS156 Python Programming: Level I 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

+ CIS250 Management of Information Systems (3) 0-3

Only students taking CIS271DB would be required to take CIS250.

+ CIS270 Essentials of Network and Information Security (3)

OR

+ CIS271DB Information Security Essentials (3) AND

+ CIS272DB Information Security Principles (3)

OR

+ ITS110 Information Security Fundamentals (3) 3-6

+ ITS240 Ethical Hacking and Network Defense 3

MCCCD Governing Board Approval Date: December 10, 2019

Data Analytics

5884 - Certificate of Completion (CCL) - (18-24 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/data-analytics-5884-ccl>

Description:

The Certificate of Completion (CCL) in Data Analytics is designed to prepare students to model, synthesize, analyze, and present large data sets for business decision making. Courses will focus on the techniques and computer software used in industry to extract data from various data sources, model and integrate that data, and then visualize this data for business decision making and intelligence gathering. This program prepares students for industry certification and is embedded (can be used to fulfill requirements) in the Associate of Applied Science (AAS) in Data Analytics available at MCCCD.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

CIS214DE is not equivalent to CIS214DA for the purposes of this certificate and should not be used to complete program requirements. Students who have completed GBS221 can use this course in lieu of GBS220.

Computer Information System (CIS) courses required by this program are not applicable if taken more than eight (8) years prior to the completion of the program of study. Consult with an Academic Advisor for complete information.

Program Prerequisites: None

Required Courses (18-24 Credits):

CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
+ CIS214DA Advanced Excel for Data Analytics 3

+ CIS217AM Advanced Microsoft Access: Database Management (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3

GBS151 Introduction to Business 3

+ GBS220 Quantitative Methods in Business (3) OR
+ GBS221 Business Statistics (3) 3

+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6) OR
Satisfactory District math placement (0) 0-6

MCCCD Governing Board Approval Date: February 28, 2023

Desktop Support

5043 - Certificate of Completion (CCL) - (19-22 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/desktop-support-5043-ccl>

Description:

The Certificate of Completion (CCL) in Desktop Support program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs. The classes focus on the development of knowledge and skills in computer, network, and security technologies, as well as the interpersonal skills in customer service/technical support needed to be successful within the industry. Depending on course selection, this program helps prepare students for the CompTIA A+, CompTIA Network+, and/or CompTIA Linux+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces CCL/5841 Microsoft Technical Specialist

Program Prerequisites: None

Required Courses (18-19 Credits):

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS102DA Customer User Support 3

CIS105 Survey of Computer Information Systems 3

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) 3

+ CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

(Note: CNT140AB is recommended for students interested in pursuing their Cisco Network Administration Certification)

Restricted Electives (1-3 Credits):

Students must select one to three (1-3) credits from the following:

BPC171 Recycling Used Computer Technology 1

+ CIS290AA Computer Information Systems Internship 1

+ CIS290AB Computer Information Systems Internship 2

+ CIS290AC Computer Information Systems Internship 3

+ CIS296WB Cooperative Education 2

+ CIS296WC Cooperative Education 3

+ CIS298AA Special Projects 1

+ CIS298AB Special Projects 2

+ CIS298AC Special Projects 3

MCCCD Governing Board Approval Date: December 10, 2019

Diagnostic Medical Sonography

5656 - Certificate of Completion (CCL) - (77-87 Credits)

Field of Interest: **Health Sciences**

For Information: Bryan Dodd

Phone: 602-286-8486

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/diagnostic-medical-sonography-5656-ccl>

Description:

The Certificate of Completion (CCL) in Diagnostic Medical Sonography (DMS) program is designed for students who wish to explore the field of sonography, as well as those who have made a career decision to seek certification from the American Registry of Diagnostic Medical Sonographers (ARDMS). Diagnostic medical sonographers are highly specialized members of the health care team who provide patient services using ultrasound under the direction of a physician. Sonographers provide

care essential to diagnostic ultrasound imaging by operating equipment and performing examinations for medical diagnosis. Sonographers have an in-depth knowledge of physics, disease processes, physiology, cross-sectional anatomy, positioning and sonographic techniques necessary to create ultrasound images. Knowledge of darkroom techniques, equipment maintenance, record keeping, and film processing are also part of the job.

Careers in the field of diagnostic sonography can be found in hospitals, clinics, doctors' offices, and mobile imaging centers. Research, applications, teaching, and marketing may be available to sonographers who wish to explore careers in business or industry.

Educational information: Clinical affiliations include a cooperative effort with a number of area hospitals, clinics, and doctors' offices. Clinical training is required by the ARDMS prior to sitting for the registry examination. This program will prepare students for the American Registry of Diagnostic Medical Sonographer examinations in abdomen, obstetrics, and vascular technology.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Students must complete the following general education and introductory courses with a 3.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum. BIO160 or (BIO201 and BIO202); ENG101 or ENG107, MAT150 or MAT151 or MAT152 or MAT155 or MAT156; and (PHY101 or PHY111).

Due to the requirements of the program accrediting body, this course of study requires many hours of classroom and clinical time. Full-time day students must submit application materials and be accepted prior to registering for the courses in the core curriculum. The full-time program is 22 months in length.

Admission Criteria:

1. Formal application and admission to the program.
2. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy and drug testing protocols.
3. Clinical health and safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.
5. There are limited spaces available in the DMS program. Only students who have completed all the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

Program Prerequisites: None

Required Courses (77-84 Credits):

BIO160 Introduction to Human Anatomy and Physiology (4) OR
+ BIO201 Human Anatomy and Physiology I (4) AND
+ BIO202 Human Anatomy and Physiology II (4) 4-8

- + DMI/DMS/ICE220 Sectional Anatomy 3
- + DMS110 Introduction to Diagnostic Sonography 3
- + DMS120 Ultrasound Imaging: Abdominal Procedures I 3
- + DMS120LL Ultrasound Imaging: Abdominal Procedures I Laboratory 1
- + DMS121 Ultrasound Imaging: Abdominal Procedures II 3
- + DMS130 Ultrasound Imaging: OB/GYN Procedures 3
- + DMS130LL Ultrasound Imaging: OB/GYN Procedures Laboratory 1
- + DMS140 Ultrasound Case Studies: Part I 2
- + DMS150 Sonographic Principles and Instrumentation I 3
- + DMS150LL Sonographic Principles and Instrumentation Laboratory 1
- + DMS155 Introduction to Clinical Care for Sonography 1
- + DMS161 Clinical Practicum II-AA 2
- + DMS162 Clinical Practicum II-AB 2
- + DMS171 Clinical Practicum III-AA 2
- + DMS172 Clinical Practicum III-AB 2
- + DMS210 Concepts of Vascular Imaging 2
- + DMS210LL Concepts of Vascular Imaging Laboratory 1
- + DMS225 High Risk Obstetric/Gynecology Sonography 1
- + DMS240 Ultrasound Case Studies: Part II 2
- + DMS241 Ultrasound Case Studies: Part III 2
- + DMS255 Pediatric Sonography 3
- + DMS261 Clinical Practicum IV-AA 2
- + DMS262 Clinical Practicum IV-AB 2
- + DMS263 Vascular Clinical Practicum I 2
- + DMS270 Clinical Practicum V-AA 2
- + DMS271 Clinical Practicum V-AB 2
- + DMS272 Clinical Practicum V-AC 2
- + DMS281 Ultrasound Registry Preparation Seminar: Physics and Instrumentation 1
- + DMS282 Ultrasound Registry Preparation Seminar: Abdominal and Small Parts Imaging 1
- + DMS283 Ultrasound Registry Preparation Seminar: Obstetrics and Gynecology 1
- + DMS284 Ultrasound Registry Preparation: Vascular Imaging 1
- + DMS286 Advanced Vascular Technology 2
- + DMS286LL Advanced Vascular Technology Laboratory 1

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) 3

- + MAT150 College Algebra/Functions (5) OR
- + MAT151 College Algebra/Functions (4) OR
- + MAT152 College Algebra/Functions (3) OR
- + MAT155 College Algebra/Functions with Review (5) OR
- + MAT156 College Algebra/Functions with Review (6) 3-6

- + PHY101 Introduction to Physics (4) OR
- + PHY111 General Physics I (4) 4

+ RES118 Vascular Access for Clinical Practice 1

Restricted Electives (0-3 Credits):

Optional: Students seeking a specialty area in sonography may select zero (0) to three (3) credits from the courses below.

+ DMS235 Ultrasound Breast Imaging 1

+ DMS250 Musculoskeletal Sonography and Small Parts 2

MCCCD Governing Board Approval Date: October 25, 2022

[Electrical Technology](#)

3767 - Associate in Applied Science (AAS) - (62-69 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/electrical-technology-3767-aas>

Description:

The Associate in Applied Science (AAS) in Electrical Technology is designed to provide students with a broadened educational background and leadership skills in electrical technology. This expertise will allow employment within the industry in the areas of management, sales, field service, business ownership or instruction. Students are admitted to the AAS in Electrical Technology only through the Electric League of Arizona.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Admission Criteria:

Formal application and admission to the program by the Electric League of Arizona and a high school diploma, GED, or 6 months electrical industry or related experience.

Program Prerequisites: None

Required Courses (40-42 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

Residential Wiring 15

ELC103 Electrical/Mechanical Calculations 3

ELC119 Concepts of Electricity and Electronics 3

ELC123 Residential Electrical Wiring and Codes 3

+ ELC160 Applied Electrical Codes I 3

ELC164 Grounding and Bonding 3

Commercial Wiring 12

ELC120 Solid State Fundamentals 3

- + ELC125 Commercial Electrical Wiring and Codes 3
- + ELC161 Applied Electrical Codes II 3
- + ELC217 Motor Controls 3

Industrial Wiring 12

- + ELC124 Industrial Electrical Wiring and Codes 3
- + ELC144 Basic Automated Systems Using Programmable Controllers 3
- + ELC210 AC Machinery and DC Machinery 3
- + ELC218 Variable Frequency Drives 3

General Education Requirement - Credits: 22-27

General Education Core - Credits: 12-17

First-Year Composition - Credits: 6

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) AND
- + ENG102 First-Year Composition (3) OR
- + ENG108 First-Year Composition for ESL (3) OR
- + ENG111 Technical and Professional Writing (3) 6

Oral Communication - Credits: 3

Any approved general education course from the Oral Communication area except COM225 Public Speaking.

Critical Reading - Credits: 0-3

- + CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment 0-3

Mathematics - Credits: 3-5

- + MAT120 Intermediate Algebra (5) OR
- + MAT121 Intermediate Algebra (4) OR
- + MAT122 Intermediate Algebra (3) OR
equivalent course or satisfactory completion of a higher level mathematics course 3-5

General Education Distribution - Credits: 10

Humanities, Arts and Design - Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social-Behavioral Sciences - Credits: 3

Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences - Credits: 4

- + CHM130 Fundamental Chemistry (3) AND
- + CHM130LL Fundamental Chemistry Laboratory (1) 4

MCCCD Governing Board Approval Date: June 28, 2022

Electrical Technology - Commercial Wiring

5904N - Certificate of Completion (CCL) - (12 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/electrical-journeymen>

Description:

The Certificate of Completion (CCL) in Electrical Technology - Commercial Wiring is specifically designed to build upon knowledge and skills in residential electrical applications and provide greater depth in skills and commercial electrical applications. The Certificate of Completion (CCL) lays the framework for the International Code Council (ICC) and International Association of Electrical Inspectors (IAEI) certification exams. Students are admitted to the Certificate of Completion in Electrical Technology - Commercial Wiring program only through the Electric League of Arizona.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

This program is not eligible for Title IV Federal Financial Aid.

Admission Criteria:

Formal application and admission to the program by the Electric League of Arizona and a high school diploma, GED, or 6 months electrical industry or related experience.

Program Prerequisites: None

Required Courses (12 Credits):

ELC120 Solid State Fundamentals 3

+ ELC125 Commercial Electrical Wiring and Codes 3

+ ELC161 Applied Electrical Codes II 3

+ ELC217 Motor Controls 3

MCCCD Governing Board Approval Date: February 27, 2018

Electrical Technology - Industrial Wiring

5906N - Certificate of Completion (CCL) - (12 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/electrical-journeymen>

Description:

The Certificate of Completion (CCL) in Electrical Technology - Industrial Wiring is specifically designed to develop knowledge of advanced electrical skills typical of industrial applications. The Certificate of Completion (CCL) lays the framework for the International Code Council (ICC) and International Association of Electrical Inspectors (IAEI) certification exams. Students are admitted to the Certificate

of Completion in Electrical Technology - Commercial Wiring program only through the Electric League of Arizona.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses within the program.

+ indicates course has prerequisites and/or corequisites.

Admission Criteria:

Formal application and admission to the program by the Electric League of Arizona and a high school diploma, GED, or 6 months electrical industry or related experience.

Program Prerequisites: None

Required Courses (12 Credits):

- + ELC124 Industrial Electrical Wiring and Codes 3
- + ELC144 Basic Automated Systems Using Programmable Controllers 3
- + ELC210 AC Machinery and DC Machinery 3
- + ELC218 Variable Frequency Drives 3

MCCCD Governing Board Approval Date: February 27, 2018

Electrical Technology - Residential Wiring

5756N - Certificate of Completion (CCL) - (15 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/electrical-journeymen>

Description:

The Certificate of Completion (CCL) in Electrical Technology: Residential Wiring is specifically designed to provide a foundation of fundamental electrical knowledge and skills in residential electrical applications. These include use of tools, applied calculations, theories and concepts of electricity and electronics, residential wiring and codes. The Certificate of Completion lays the framework for the International Code Council (ICC) and International Association of Electrical Inspectors (IAEI) certification exams. Students are admitted to the Certificate of Completion in Electrical Technology-Residential Wiring program only through the Electric League of Arizona.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses within the program.

+ indicates course has prerequisites and/or corequisites.

Admission Criteria:

Formal application and admission to the program by the Electric League of Arizona and a high school diploma, GED, or 6 months electrical industry or related experience.

Program Prerequisites: None

Required Courses (15 Credits):

ELC103 Electrical/Mechanical Calculations 3
+ ELC119 Concepts of Electricity and Electronics 3
ELC123 Residential Electrical Wiring and Codes 3
+ ELC160 Applied Electrical Codes I 3
ELC164 Grounding and Bonding 3

MCCCD Governing Board Approval Date: April 25, 2017

Endoscopy

5246 - Certificate of Completion (CCL) - (27-40.5 Credits)

Field of Interest: **Health Sciences**

For Information: Baljeet Gill

Email: baljeet.gill@gatewaycc.edu

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/endoscopy-5246-ccl>

Description:

The Certificate of Completion (CCL) in Endoscopy program is for individuals interested in assisting physicians and nurses with various endoscopic procedures, as well as providing basic care for the endoscopy patient. The endoscopy technician is responsible for preparing, maintaining, and cleaning medical instrumentation and equipment. Students will learn how to handle endoscopes and accessories during various types of endoscopy procedures.

Program Notes:

Students must earn a grade of C or better in all courses in the program.

Where selected as part of program completion, the following general education and introductory courses must be completed with a 3.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum: [BIO160 or (BIO201 and BIO202)]; (ENG101 or ENG107); (ENG102 or ENG108); HCC/RES109 or proof of current American Heart Association Health Care Provider CPR Certification; [HCC130 or (HCC130AA and HCC130AB and HCC130AC and HCC130AD and HCC130AE and HCC130AF) or permission of GateWay Health Core Curriculum Coordinator]; (HCC145 or HCC146 or permission of GateWay Health Core Curriculum Coordinator); MAT15+ or equivalent course or satisfactory completion of a higher-level algebra mathematics course.

Admission Criteria:

1. Formal application and admission to the program.
2. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCD Background Check Policy.

3. Clinical health and safety requirements must be met prior to enrollment in any program of study course. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy and drug testing protocols.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes or during the program may result in cancellation of enrollment.
5. There are limited spaces available in the Endoscopy program. Only students who have completed all of the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

Program Prerequisites: None

Required Courses (27-40.5 Credits):

BIO160 Introduction to Human Anatomy and Physiology (4) OR

+ BIO201 Human Anatomy and Physiology I (4) AND

+ BIO202 Human Anatomy and Physiology II (4) 4-8

+ ENG101 First-Year Composition (3) OR

+ ENG107 First-Year Composition for ESL (3) 3

+ ENG102 First-Year Composition (3) OR

+ ENG108 First-Year Composition for ESL (3) 3

+ EDT100 Introduction to Endoscopy 1

+ EDT101 Microbiology and Infection Control in Endoscopy 1

+ EDT102 Fundamentals of Endoscope Care and Handling 3

+ EDT105 Advanced Endoscopy Care and Handling 3

+ EDT200 Clinical Practicum 3

+ EDT201 Endoscopy Procedures 3

HCC/RES109 CPR for Health Care Provider (0.5) OR

Proof of Current American Heart Association Health Care Provider CPR Certification (0) 0-0.5

HCC130 Fundamentals in Health Care Delivery (3)

OR

HCC130AA Health Care Today (0.5) AND

HCC130AB Workplace Behaviors in Health Care (0.5) AND

HCC130AC Personal Wellness and Safety (0.5) AND

HCC130AD Communication and Teamwork in Health Care Organizations (0.5) AND

HCC130AE Legal Issues in Health Care (0.5) AND

HCC130AF Decision Making in the Health Care Setting (0.5)

OR

Permission of GateWay Health Core Curriculum Coordinator (0) 0-3

HCC145 Medical Terminology for Health Care Professionals (3) OR

HCC146 Common Medical Terminology for Health Care Professionals (2) OR

Permission of GateWay Health Core Curriculum Coordinator (0) 0-3

- + MAT150 College Algebra/Functions (5) OR
 - + MAT151 College Algebra/Functions (4) OR
 - + MAT152 College Algebra/Functions (3) OR
 - + MAT155 College Algebra/Functions with Review (5) OR
 - + MAT156 College Algebra/Functions with Review (6) OR
- Equivalent course or satisfactory completion of a higher-level algebra mathematics course 3-6

MCCCD Governing Board Approval Date: December 13, 2022

Engine Performance and Diagnosis

5479N - Certificate of Completion (CCL) - (15 Credits)

Field of Interest: **Applied Technology**

For Information: Jason Cooper

Phone: 602-286-8629

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/engine-performance-and-diagnosis-5479n-ccl>

Description:

Students can obtain a Certificate of Completion by successfully completing the following courses with a grade of "C" or better. This course grouping should prepare the student to enter the automotive engine service area.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses within the program.

+ indicates course has prerequisites and/or corequisites.

Program Prerequisites: None

Required Courses (15 Credits):

AUT103AA Automotive Electrical Systems 6

AUT104AA Automotive Fuel Systems 3

AUT105AA Engine Performance and Diagnosis 3

+ AUT233 Computerized Engine Control Systems (3) OR

+ AUT210AA Automotive Emission Systems (3) 3

MCCCD Governing Board Approval Date: 10-24-95

Entrepreneurial Studies Level I

5819N - Certificate of Completion (CCL) - (10-11 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/entrepreneurial-studies-level-i-5819n-ccl>

Description:

The Certificate of Completion (CCL) in Entrepreneurial Studies Level I program is designed to provide students with an introduction to the entrepreneurial process. Courses include a history of entrepreneurship, current research into its impacts on society, types of business start-up opportunities, and creating a preliminary business plan, as well as securing a healthy financial future. A Certificate of Completion (CCL) in Entrepreneurial Studies Level II is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for all courses within the program.

This program replaces:

CCL/5192N Small Business Entrepreneurship

CCL/5706N Small Business Start-Up

CCL/5892 Business Micro Finance

Program Prerequisites: None

Required Courses (10-11 Credits):

EPS150 Introduction to Entrepreneurship 3

EPS160 New Venture Creation 2

EPS162 Introduction to Social Entrepreneurship (3) OR

EPS195 Business Start-Up and Planning (2) 2-3

GBS/HEC132 Personal and Family Financial Security 3

MCCCD Governing Board Approval Date: May 28, 2019

[Entrepreneurial Studies Level II](#)

5820 - Certificate of Completion (CCL) - (18-19 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/entrepreneurial-studies-level-ii-5820-ccl>

Description:

The Certificate of Completion (CCL) in Entrepreneurial Studies Level II program is designed to prepare students to acquire additional skills, tools and knowledge necessary for successful venture opportunities. A Certificate of Completion (CCL) in Entrepreneurial Studies Level I is also available and fully embedded in this program.

Program Notes:

Students must earn a grade of C or better for all courses within the program.

This program replaces: CCL/5892 Business Micro Finance

Program Prerequisites: None

Required Courses (18-19 Credits):

EPS150 Introduction to Entrepreneurship 3

EPS160 New Venture Creation 2

EPS162 Introduction to Social Entrepreneurship (3) OR

EPS195 Business Start-Up and Planning (2) 2-3

GBS/HEC132 Personal and Family Financial Security 3

EPS161 New Venture Law and Finance (3) OR

EPS180 Technology Business Planning (3) 3

EPS165 New Venture Feasibility Analysis 2

MGT253 Owning and Operating a Small Business 3

MCCCD Governing Board Approval Date: May 28, 2019

Environmental Science Technology

5553 - Certificate of Completion (CCL) - (30 Credits)

Field of Interest: **Applied Technology**

For Information: Craig Urbanski

Phone: 602-286-8616

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/environmental-science-technology-5553-ccl>

Description:

The Certificate of Completion (CCL) in Environmental Science Technology provides education in environmental research and investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population. Using knowledge of various scientific disciplines, may collect, synthesize, study, report, and recommend action based on data derived from measurements or observations of air, soil, and water in preparation for employment.

Laboratory activities are an integral part of this program. These activities include instruction in the use of safety procedures, tools, equipment, materials, and processes related to these occupations.

Program Notes:

Students must earn a grade of C or better for all courses within the program.

+ indicates course has prerequisites and/or corequisites.

Admission Criteria:

Formal application and admission to the program is required. A high school diploma OR GED equivalency is required. Student must be eligible to enroll in MAT12+ by satisfactory District placement OR satisfactory completion of a higher level mathematics course.

Program Prerequisites:

Admission into the Environmental Science Technology Program or permission of the Program Director.

Required Courses (30 Credits):

BIO105 Environmental Biology 4

BPC110 Computer Usage and Applications (3) 0

CIS105 Survey of Computer Information Systems (3) 3

+ WRT100 Introduction to Water Resources 3

+ WRT108 Fundamentals of Environmental Science Technology 3

+ WRT117 Geographic Information Systems (GIS) 3

+ WRT130 Groundwater Hydrology 3

+ WRT150 Introduction to Surface Water Data Collection 3

+ WRT153 Environmental Law and Regulations 3

+ WRT180 Environmental Sampling and Analysis 5

Credits: 30

MCCCD Governing Board Approval Date: June 25, 2019

Fast Track Practical Nursing

5114 - Certificate of Completion (CCL) - (22-27.5 Credits)

Field of Interest: **Health Sciences**

For Information: Jeri Lastine

Phone: 602-286-8560

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/fast-track-practical-nursing-5114-ccl>

Description:

The Certificate of Completion (CCL) in Fast Track Practical Nursing program provides students with the theory and skills required to practice as a practical nurse in acute care, extended care, and intermediate care settings. The program of study combines nursing theory lectures with planned patient care learning experiences in hospitals, nursing homes and health care agencies. Graduates are eligible to take the National Council Licensure Examination (NCLEX-PN) to become a licensed practical nurse (LPN). Licensing requirements are the exclusive responsibility of the Arizona State Board of Nursing.

The Fast Track Practical Nursing Program is approved by the Arizona State Board of Nursing.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Waiver of Licensure/Certification Guarantee:

Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

Level One Fingerprint Clearance is required for admission into the program. Applicants must present a Level One Fingerprint Clearance Card to be copied by the advisor or designee. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602.771.7800).

Health Declaration:

It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. All students must provide documentation of compliance with all health and safety requirements. Only students in compliance with the mandatory health and safety requirements are permitted to remain enrolled in nursing courses.

Health and Safety Requirements for the Fast Track Nursing Program:

1. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Admission to a nursing program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCDCD background check policy.

Admission Criteria:

1. Application and acceptance into Fast-Track Practical Nursing Program.
2. A passing score on a nursing program admission test is required to complete an application.
3. Documentation of Health and Safety Requirements.
4. Fingerprint Clearance Card.
5. High school diploma or GED is required. Applicants must signify that they meet this requirement by providing high school diploma/transcripts or GED completion OR by signing the nursing

application page containing the `Declaration of High School Graduation or GED completion.` In some instances, high school diploma/transcripts or proof of GED completion may be required.

Program Prerequisites (0-4.5 Credits):

Current Certified Nurse Assistant (CNA) (0) OR

Licensed Nurse Assistant (LNA) (0) OR

+ NCE150 Advanced Placement: Nurse Assisting (2) OR

+ NUR158 Nurse Assisting (4.5) OR

Equivalent (0-4.5) OR

Waived by Nursing Program Director for Military Veterans demonstrating equivalent work experience (0) 0-4.5

Required Courses (22-23 Credits):

Students should meet with Nursing Program Director to make appropriate course selection for NUR150 or NUR180PN.

+ NUR160PN Practical Nursing Theory and Science I 11

+ NUR150 Practical Nurse Bridge Course (12) OR

+ NUR180PN Practical Nursing Theory and Science II (11) 11-12

MCCCD Governing Board Approval Date: May 24, 2022

[Financial Industry](#)

5223 - Certificate of Completion (CCL) - (18 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/accounting-banking-and-finance>

Description:

The Certificate of Completion (CCL) in Financial Industry provides an introduction to the banking and financial industry with emphasis on the role of financial institutions, investments, consumer lending, and related terminology. This program leads to a Certificate of Completion (CCL) and/or Associate in Applied Science (AAS) in Banking and Finance.

Program Notes:

Students must earn a grade of C or better in all courses required within the program.

Program Prerequisites: None

Required Courses (18 Credits):

CIS105 Survey of Computer Information Systems 3

CIS114DE Excel Spreadsheet 3

GBS103 Principles of Banking 3
GBS151 Introduction to Business 3
GBS261 Investments I 3
GBS294 Consumer Credit 3

MCCCD Governing Board Approval Date: May 25, 2021

General Business

5683 - Certificate of Completion (CCL) - (21 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/general-business-5683-cc>

Description:

The Certificate of Completion (CCL) in General Business is designed to provide business training for various entry-level positions in business. The courses include an introduction to business concepts, accounting and computer principles, and legal issues related to business. An Associate in Applied Science (AAS) is also available.

Program Notes:

Students must earn a grade of C or better in all courses in the program.

Program Prerequisites: None

Required Courses (12 Credits):

ACC111 Accounting Principles I 3
CIS105 Survey of Computer Information Systems 3
GBS151 Introduction to Business 3
GBS205 Legal, Ethical and Regulatory Issues in Business 3

Restricted Electives (9 Credits):

Students should select nine (9) credits from the following courses/subjects. Any 100/200 level courses in the following subjects can be used, except courses used to satisfy the Required Courses area.

ACC+++ Any ACC Accounting course(s)
CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development Level I 3
EPS+++ Any EPS Entrepreneurial Studies course(s) 1-3
GBS+++ Any GBS General Business course(s)
MGT+++ Any MGT Management course(s)
MKT+++ Any MKT Marketing course(s)
IBS+++ Any IBS International Business course(s)
REA+++ Any REA Real Estate course(s)

SBS+++ Any SBS Small Business Management course(s)
TQM+++ Any TQM Total Quality Management course(s)

MCCCD Governing Board Approval Date: June 25, 2019

Health Services Management

5336 - Certificate of Completion (CCL) - (19-25 Credits)

Field of Interest: **Health Sciences**

For Information: Ahmad Pardazi

Phone: 480-620-0681

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/health-services-management-5336-ccl>

Description:

The Certificate of Completion (CCL) in Health Services Management program prepares students to become candidates for leadership, supervisory and management positions in health services settings. The health services supervisor must develop skills to be an effective leader and planner, capable of coaching and developing motivated and committed employees and employee teams.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Program Prerequisites: None

Required Courses (19-25 Credits):

HCC130 Fundamentals in Health Care Delivery (3)

OR

HCC130AA Health Care Today (0.5) AND

HCC130AB Workplace Behaviors in Health Care (0.5) AND

HCC130AC Personal Wellness and Safety (0.5) AND

HCC130AD Communication and Teamwork in Health Care Organizations (0.5) AND

HCC130AE Legal Issues in Health Care (0.5) AND

HCC130AF Decision making in the Health Care Setting (0.5)

OR

Work experience or equivalent course education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-3

HCC145 Medical Terminology for Health Care Professionals (3) OR

Work experience or equivalent course education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-3

HRC101 Overview of Healthcare Compliance 1

HSM122 Health Services Supervision 3

HSM125 Current Issues in Health Services Management 3

HSM222 Health Services Management 3

HSM226 Ethics and Legalities of Health Services Management 3

HSM230 Healthcare Strategic Planning and Deployment 3

MCCCD Governing Board Approval Date: November 23, 2021

Healthcare Regulatory Compliance

5773 - Certificate of Completion (CCL) - (16-19 Credits)

Field of Interest: **Health Sciences**

For Information: Ahmad Pardazi

Phone: 480-620-0681

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/healthcare-regulatory-compliance-5773-ccl>

Description:

The Certificate of Completion (CCL) in Healthcare Regulatory Compliance is designed to provide academic preparation for health care professionals wishing to pursue a career in Healthcare Regulatory Compliance. This specialized field of healthcare administration is focused on the application and enforcement of federal and state laws. These regulations safeguard patient privacy, patient rights, and emergency access to care, appropriate healthcare billing and coding practices as well as appropriate contracting of related services, referrals, and payments for services provided by medical professionals.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

HCC courses may be taken prior to admission or concurrently during enrollment in the program.

Program Prerequisites: None

Required Courses (16-19 Credits):

HCC130 Fundamentals in Health Care Delivery (3)

OR

HCC130AA Health Care Today (0.5) AND

HCC130AB Workplace Behaviors in Health Care (0.5) AND

HCC130AC Personal Wellness and Safety (0.5) AND

HCC130AD Communication and Teamwork in Health Care Organizations (0.5) AND

HCC130AE Legal Issues in Health Care (0.5) AND

HCC130AF Decision making in the Health Care Setting (0.5)

OR

Work experience or equivalent course education as evaluated by the GateWay Health Core Curriculum Coordinator (0) 0-3

HRC101 Overview of Healthcare Compliance 1

HRC228 Healthcare Industry Regulation 3

HRC230 Healthcare Corporate Compliance Program Design 3

HRC232 Health Care Regulatory Compliance Program Design 3

HRC234 Health Care Regulatory Enforcement Case Studies 3

HSM226 Ethics and Legalities of Health Services Management 3

Hospital Central Service Technology

5311 - Certificate of Completion (CCL) - (18-26.5 Credits)

Field of Interest: **Health Sciences**

For Information: Brandy Thompson

Phone: 602-286-8516

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/hospital-central-service-technology-5311-ccl>

Description:

The Certificate of Completion (CCL) in Hospital Central Service Technology program focuses on the types and names of instrumentation and equipment, decontamination of instrumentation, processing of instruments, a firm foundation in the process of sterilization of instrumentation, storage, quality assurance, instrument tracking systems and methods of delivery. Students will have hands-on skill labs to learn techniques used for building instrument trays, wrapping surgical supplies and familiarizing themselves with care and handling of instrumentation, operating sterilization machines, customer service, and communication techniques. Clinical experience is arranged to give the student working experience in all of the practical areas of this department and delivery to hospital floors, intensive care units, the emergency room, specialty clinics, labs and operating rooms.

Hospital Central Service students with the Certificate of Completion (CCL) are eligible to complete the Certified Registered Central Service Technician (CRCST) certification from the Healthcare Sterile Processing Association (HSPA) that prepares them for employment in hospitals, clinics, veterinary hospitals, out-patient hospital settings, endoscopy, manufacturing companies of surgical supplies, or bone and tissue banks.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Admission Criteria:

1. Formal application and admission to the program.
2. Background Check Requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCD background check policy.
3. Clinical Health and Safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCD clinical health and safety policy.
4. Inability to comply with Background Check requirements and/or Clinical Health and Safety requirements at the start of classes or at any time during the program will result in cancellation of enrollment.

Program Prerequisites: None

Required Courses (18-26.5 Credits):

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

HCC130 Fundamentals in Health Care Delivery (3) OR

HCC130AA Health Care Today (0.5) AND

HCC130AB Workplace Behaviors in Health Care (0.5) AND

HCC130AC Personal Wellness and Safety (0.5) AND

HCC130AD Communication and Teamwork in Health Care Organizations (0.5) AND

HCC130AE Legal Issues in Health Care (0.5) AND

HCC130AF Decision Making in the Health Care Setting (0.5) OR

Permission of GateWay Health Core Curriculum Coordinator 0-3

HCC145 Medical Terminology for Health Care Professionals (3) OR

HCC146 Common Medical Terminology for Health Care Professionals (2) OR

Permission of GateWay Health Core Curriculum Coordinator 0-3

HCC/RES109 CPR for Health Care Provider (0.5) OR

Proof of Current American Heart Association Health Care Provider CPR Certification (0) 0-0.5

+ HCS/SGT100 Fundamentals of Surgical Services 5

+ HCS/SGT102 Basic Surgical Instrumentation for Surgical Services 2

+ HCS/SGT107 Equipment and Supplies for Surgical Services 1

+ HCS/SGT152 Advanced Surgical Instruments for Surgical Services 2

+ HCS154 Hospital Central Service Practicum 7

MCCCD Governing Board Approval Date: November 22, 2022

Human Resources Management

5580 - Certificate of Completion (CCL) - (24 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/human-resources-management-5580-ccl>

Description:

The Certificate of Completion (CCL) in Human Resources Management program is designed to provide skills necessary for careers in human resources management. The program is designed to provide students a series of courses with an emphasis in management and is designed to prepare students for an entry-level position in human resources. Graduates may be employed in employment (recruiting, interviewing, and hiring), benefits administration, compensation, and employee relations.

Program Notes:

Students must earn a grade of C or better in all courses required within the program.

Program Prerequisites: None

Required Courses (24 Credits):

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

GBS205 Legal, Ethical, and Regulatory Issues in Business 3

GBS131 Business Calculations (3) OR
+ MAT112 Mathematical Concepts and Applications (3) OR
Satisfactory completion of higher level Mathematics course 3

GBS120 Workplace Communication Skills 3
MGT229 Management and Leadership I 3
MGT251 Human Relations in Business 3
MGT276 Human Resources Management 3
+ MGT286 Human Resource Employment Management 3

MCCCD Governing Board Approval Date: May 28, 2019

HVAC Commercial Installation and Service Technician **5242 - Certificate of Completion (CCL) - (45.5-51.5 Credits)**

Field of Interest: **Applied Technology**

For Information: Larry Bruce Martz

Phone: 602-286-8643

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/hvac-commercial-installation-and-service-technician-5242-ccl>

Description:

The Certificate of Completion (CCL) in HVAC Commercial Installation and Service Technician is designed to provide entry-level training in the areas of heating, ventilation, air conditioning and refrigeration (HVAC/R) systems, electricity, electronic controls and instrumentation, hydronics, electro-mechanical devices, and general repair. Students will have the opportunity to learn skills necessary to assess and solve problems quickly, based upon an understanding of regulatory guidelines. An Associate in Applied Science (AAS) in Air Conditioning/Refrigeration/Facilities is also available.

Program Notes:

Students must earn a grade of C or better for all courses within the program.
OSH105AA and OSH106AA must be completed in the in-person format.

Program Prerequisites: None**Required Courses (45.5-51.5 Credits):**

CON105 Construction Calculations 1.5
CON107 Construction Drawings Introduction 1
CON/HVA131 Electrical Systems 3.5

CON235 Motors: Theory and Application (4) OR
ELC/FAC115 Motors, Controls and Wiring Diagrams (3) AND
+ FAC115LL Motors, Controls and Wiring Diagrams Lab (1) 4

CON271 Construction Safety (3) OR
OSH105AA Construction Safety (3) OR
OSH106AC Industrial Safety (3) OR
Proof of OSHA 30-hour card (0) 0-3

FAC186 Electro-Mechanical Devices 3
FAC/HVA210 Facilities Air Conditioning Systems 4
FAC220 Controls and Instrumentation 4
FAC/HVA231 Codes 3
FAC235 Commercial Air and Water Test and Balance 4

FAC/HVA101 HVAC for Residential Systems I 4
HVA102 HVAC for Residential Systems II 5
HVA104 EPA Section 608 Technician Preparation and Certification 0.5
HVA120 HVAC Installation 4
HVA130 HVAC Troubleshooting 4

RDG100 Successful College Reading (3) OR
Placement out of RDG100 as determined by multiple measures assessment (0) 0-3

MCCCD Governing Board Approval Date: February 23, 2021

HVAC Residential Installation and Service Technician **5241 - Certificate of Completion (CCL) - (23.5-29.5 Credits)**

Field of Interest: **Applied Technology**

For Information: Larry Bruce Martz

Phone: 602-286-8643

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/hvac-residential-installation-and-service-technician-5241-cc/>

Description:

The Certificate of Completion (CCL) in HVAC Residential Installation and Service Technician is designed to provide entry-level training in the areas of heating, ventilation, air conditioning and refrigeration (HVAC) systems, electricity, electronic controls, and general repair. Students will have the opportunity to learn skills necessary to assess and solve problems quickly. A Certificate of Completion (CCL) in Commercial Air Conditioning/Refrigeration/Facilities, an Associate in Applied Science (AAS) in Air Conditioning/Refrigeration/Facilities, and a Certificate of Competency (CCT) in HVAC Residential Installation and Service Technician are also available.

Program Notes:

Students must earn a grade of C or better for all courses within the program.

In the Required Courses area, the options for OSH105AA, OSH106AA or proof of OSHA 30-hour card must be the in-person format.

Completion of the District Placement Exam in Mathematics is required before the start of the Residential and Light Commercial Air Conditioning program.

Program Prerequisites: None

Required Courses (23.5-29.5 Credits):

CON103 Foundation of Construction Safety (1) OR
CON271 Construction Safety (3) OR
OSH105AA Construction Safety (3) OR
OSH106AC Industrial Safety (3) OR
Proof of OSHA 10-hour or 30-hour card (0) 0-3
CON105 Construction Calculations 1.5
CON107 Construction Drawings Introduction 1
FAC/HVA101 HVAC for Residential Systems I 4
HVA102 HVAC for Residential Systems II 5
HVA104 EPA Section 608 Technician Preparation and Certification 0.5
CON/HVA131 Electrical Systems 3.5
HVA120 HVAC Installation 4
HVA130 HVAC Troubleshooting 4

RDG100 Successful College Reading (3) OR

Placement out of RDG100 as determined by multiple measures assessment (0) 0-3

MCCCD Governing Board Approval Date: February 23, 2021

Industrial Design Technology: Design Specialist

5184 - Certificate of Completion (CCL) - (26 Credits)

Field of Interest: **Applied Technology**

For Information: David Zamora

Phone: 602-286-8656

<https://www.gatewaycc.edu/degrees-and-certificates/center-industrial-technology>

Description:

The Certificate of Completion (CCL) in Industrial Design Technology: Design Specialist provides foundational industrial design skills. The foundational skills gained will allow employment in a variety of hi-tech product development and medical device, consumer product, aerospace, and automotive manufacturing companies. The program includes courses designed to provide students with a working knowledge in the field of product design, product development and rapid part manufacturing. The core specialty of the program is hands-on experience with solid design. There is also an Associate in Applied Science (AAS) in Industrial Design available.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

+ indicates course has prerequisites and/or corequisites.

This program replaces: CCL/5642 Industrial Design Technology: Design Specialist: SolidWorks

Program Prerequisites: None

Required Courses (26 Credits):

MPT101 Technical Documentation 3

MPT110 Inspection Techniques 3

MPT111 Geometric Dimensioning and Tolerance (GDT) 3

+ MPT113 Coordinate Measuring Machines I 3

MPT151 Solid Design I: SolidWorks 3

+ MPT152 Solid Design: Certified SolidWorks Associate/Certified SolidWorks Professional Test Preparation (1) OR

+ MPT298AA Special Projects (1) 1

+ MPT250 Solid Design II: Advanced Part Modeling: SolidWorks 3

+ MPT251 Solid Design: Documentation/GD&T: SolidWorks 3

+ MPT255 Solid Design 3D Printing 4

MCCCD Governing Board Approval Date: February 25, 2020

iOS App Development

5914N - Certificate of Completion (CCL) - (9-12 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/ios-app-development-5914n-ccl>

Description:

The Certificate of Completion (CCL) in iOS App Development prepares students for positions in app development for the Apple iPad, iPhone, and Apple Watch series. The program emphasizes knowledge and skills required to design, develop, test, and document structured and object-oriented programs utilizing Swift and Xcode. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificates of Completion (CCLs) in Native App Development and Mobile App Development.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (9-12 Credits):

CIS105 Survey of Computer Information Systems (3) OR
Permission of Program Director, Department or Division Chair (0) 0-3

- + CIS150AB Object-Oriented Programming Fundamentals 3
- + CIS165 Introduction to IOS Application Development 3
- + CIS265 Advanced iOS Application Development 3

MCCCD Governing Board Approval Date: December 10, 2019

Linux Associate

5046N - Certificate of Completion (CCL) - (6-9 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/linux-associate-5046n-ccl>

Description:

The Certificate of Completion (CCL) in Linux Associate program is designed to help prepare students for employment or to improve current professional skills. The program includes Linux operating system basics and management including sophisticated manipulation of file structures, backup systems, printing processes, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, kernel customization, and system resource control. This program helps prepare students for the Linux Professional Institute Certification (LPIC-1) and CompTIA Linux+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces: CCL/5219 Linux Associate

Program Prerequisites: None

Required Courses (6-9 Credits):

CIS105 Survey of Computer Information Systems (3) OR
Permission of program director (0) 0-3

CIS126DL Linux Operating System 3
+ CIS238DL Linux System Administration 3

MCCCD Governing Board Approval Date: November 26, 2019

[Linux System Administration](#)

5052N - Certificate of Completion (CCL) - (15-18 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/linux-system-administration-5052n-ccl>

Description:

The Certificate of Completion (CCL) in Linux System Administration program is designed to help prepare students for a variety of industry-recognized Linux certification exams as well as provide practical hands-on skills for the workplace. The program includes a core of Linux classes including Linux operating system basics, system administration, network administration and network security. The courses in the program will help develop a student's knowledge and skill level in preparation for employment or to improve current professional skills. Students who complete this program may seek employment in a variety of environments. The program helps prepare students for the Red Hat Certified System Administrator (RHCSA), Red Hat Certified Engineer (RHCE), and CompTIA Linux+ certification exams. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces: CCL/5225 Linux Networking Administration

Program Prerequisites: None

Required Courses (15-18 Credits):

CIS105 Survey of Computer Information Systems (3) OR
Permission of program director (0) 0-3

Students should select from one of the following two specializations (Linux or Red Hat Enterprise Linux):

Specialization: Linux

CIS126DL Linux Operating System 3
+ CIS238DL Linux System Administration 3
+ CIS239DL Linux Shell Scripting 3
+ CIS240DL Linux Network Administration 3
+ CIS275DL Linux Capstone 3

Specialization: Red Hat Enterprise Linux

CIS126RH Red Hat System Administration I 3
+ CIS238RH Red Hat System Administration II 3
+ CIS239DL Linux Shell Scripting 3
+ CIS240RH Red Hat System Administration III 3
+ CIS275DL Linux Capstone 3

MCCCD Governing Board Approval Date: December 10, 2019

Magnetic Resonance Imaging

5626 - Certificate of Completion (CCL) - (19 Credits)

Field of Interest: **Health Sciences**

For Information: Tabatha Hatfield

Phone: 602-286-8483

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/magnetic-resonance-imaging-5626-ccl>

Description:

The Certificate of Completion (CCL) in Magnetic Resonance Imaging program offers graduate radiologic technologists, radiation therapists, nuclear medicine technologists, and diagnostic medical sonographers the opportunity to complete both didactic coursework and clinical skills experience necessary to prepare to meet eligibility for the professional certification in this field. The program focuses on specific skills and knowledge necessary to become proficient in this field.

Program Notes:

Students must earn a grade of C or better for all courses within the program.

Where selected as part of program completion, the following introductory courses must be completed, to be added to the queue of those waiting for an available cohort space to begin the core curriculum: DMI/DMS/ICE220, ICE233, NUC220.

Admission Criteria:

1. Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy, OR Certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine, OR Certified by American Registry of Diagnostic Medical Sonography (ARDMS) or ARRT in Diagnostic Medical Sonography.
2. Formal application and admission to the program by the Program Coordinator.
3. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDCD background check policy.
4. Clinical health and safety requirements must be met prior to enrollment in any program of study course. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDCD Clinical Health and Safety Policy and drug testing protocols.
5. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes or during the program may result in cancellation of enrollment.
6. There are limited spaces available in the Magnetic Resonance Imaging program. Only students who have completed all of the introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

Program Prerequisites: None

Required Courses (19 Credits):

- + DMI/DMS/ICE220 Sectional Anatomy (3) OR
- + NUC220 Sectional Anatomy for Nuclear Medicine (3) 3

- + ICE229 Magnetic Resonance (MR) Multi-Planar Sectional Anatomy 2
- + ICE233 Fundamentals of Magnetic Resonance Imaging (MRI) 1
- + ICE254 Advanced Imaging Practicum 1
- + ICE264 MRI Physics, Instrumentation and Safety 3
- + ICE268 MRI Advanced Imaging Practicum 2
- + ICE269 Magnetic Resonance Procedure Protocols 3
- + ICE272 Magnetic Resonance Pathology 3
- + ICE292 MRI Board Exam Review Preparation 1

MCCCDCD Governing Board Approval Date: December 14, 2021

Marketing

5094 - Certificate of Completion (CCL) - (21 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/marketing-5094-cc/>

Description:

The Certificate of Completion (CCL) in Marketing program meets students` needs by providing skills necessary for marketing careers. The program is designed to develop competencies essential for success in Marketing. By completing this program, students will be better equipped for successful performance in a variety of marketing/management occupations including wholesaling, retailing, professional sales, and entrepreneurship. An Associate in Applied Science (AAS) in Marketing and Sales is available.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

++ indicates any suffixed courses.

+ indicates course has prerequisites and/or corequisites.

Program Prerequisites: None

Required Courses (18 Credits):

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

GBS151 Introduction to Business 3
GBS120 Workplace Communication Skills 3
MKT263 Advertising Principles 3
MKT267 Principles of Sales 3
MKT271 Principles of Marketing 3

Restricted Electives (3 Credits):

Students should select from the following courses in consultation with Department Advisor.

CIS103 Introduction to Social Media 3
MKT101 Introduction to Public Relations 3
MKT110 Marketing and Social Networking 3
MKT268 Merchandising 3

MCCCD Governing Board Approval Date: June 25, 2019

Microsoft Desktop Associate

5030N - Certificate of Completion (CCL) - (3 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/microsoft-desktop-associate-5030n-ccl>

Description:

The Certificate of Completion (CCL) in Microsoft Desktop Associate program is designed to provide students with background knowledge and skills required for learning the specific tasks and industry

recognized standards associated with how to effectively install and configure Windows operating systems. The course includes basic features of the Windows operating system, virtualization improvements, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. It is designed to prepare students for the Microsoft 365 Certified: Modern Desktop Administrator Associate certification exam. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification exams. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students are encouraged, but not required, to complete CIS105, or CIS190, or CNT140AB prior to beginning this CCL. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (3 Credits):

MST150WT Installing and Configuring Microsoft Windows 10 3

MCCCD Governing Board Approval Date: November 26, 2019

[Millwrighting](#)

5415 - Certificate of Completion (CCL) - (16-36 Credits)

Field of Interest: **Applied Technology**

For Information: Stephanie Stewart

Phone: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/millwright-journeymen>

Description:

The Certificate of Completion (CCL) in Millwrighting program is designed to provide knowledge and skills in the millwrighting trade. Coursework includes courses in millwrighting and welding. Specifically, the courses train apprentices to safely handle both shop and field jobs, to lay out and erect industrial machinery, to operate welding equipment, and to design, install, turbines, optics, conveyor systems, solar installation, and operate systems inherent to the millwrighting trade. Upon the completion of this apprenticeship program, students are considered journeymen in the millwrighting trade.

Program Notes:

Students must earn a grade of C or better for each course listed in the program.

The CCL is awarded ONLY to apprentices who have simultaneously enrolled with Southwest Carpenters Training Fund and GateWay Community College.

There is also a Prior Learning Assessment (PLA) option for journeymen who have completed any registered apprenticeship program in Millwrighting. However, PLA will be awarded for degree-seeking students only, with verification of journeymen status and additional criteria. The credits will be awarded toward the AAS degree. The CCL will not be awarded for those pursuing PLA.

Admission Criteria:

Registered apprentice status in the state of Arizona with a trade-specific sponsoring organization.

Program Prerequisites: None

Required Courses (16-36 Credits):

Students should select from sixteen (16) to thirty-six (36) credits from the following courses based on their apprenticeship standing upon program enrollment and in consultation with Apprenticeship Program Coordinator.

- + MWR101 Introduction to Millwrighting 2
- + MWR102 Millwrighting Safety and Health Certifications 2
- + MWR103 Machinery Installation and Erection I 2
- + MWR104 Machinery Installation and Erection II 2
- + MWR105 Millwrighting General Skills 2
- + MWR107 Drives, Pulleys and Belts 2
- + MWR108 Reading Mechanical Prints 2
- + MWR109 Turbine Familiarization 2
- + MWR110 Cutting and Burning 2
- + MWR111 Tools and Equipment Applications 2
- + MWR201 Shaft Alignment I 2
- + MWR202 Conveyor Systems 2
- + MWR205 Shaft Alignment II 2
- + MWR206 Rigging Hardware and Procedures 2
- + MWR208 Compressor Theory and Maintenance 2
- + MWR210 Solar Installer 2
- + WLD215AA Weld Fabrication I for Millwrighting 2
- + WLD215AB Weld Fabrication II for Millwrighting 2

MCCCD Governing Board Approval Date: April 27, 2021

Musculoskeletal Sonography

5916N - Certificate of Completion (CCL) - (20 Credits)

Field of Interest: **Health Sciences**

For Information: Bryan Dodd

Phone: 602-286-8486

Description:

The Certificate of Completion (CCL) in Musculoskeletal Sonography program is designed for students who wish to explore the field of sonography, as well as those who have made a career decision to seek certification from the American Registry of Diagnostic Medical Sonographers (ARDMS) or the Alliance for Physician Certification and Advancement (APCA). Diagnostic medical sonographers are highly specialized members of the health care team who provide patient services using ultrasound under the direction of a physician. Sonographers provide care essential to diagnostic ultrasound imaging by operating equipment and performing examinations for medical diagnosis. Sonographers have an in-depth knowledge of physics, disease processes, physiology, cross-sectional anatomy, positioning and sonographic techniques necessary to create ultrasound images. Knowledge of darkroom techniques, equipment maintenance, record keeping, and film processing are also part of the job.

Careers utilizing musculoskeletal diagnostic ultrasound include physicians, physician assistants, nurse practitioners, physical therapists, and sonographers among others. Research, applications, teaching, and marketing may be available to those who wish to explore careers in business or industry.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for all courses required within the program.

+ indicates course has prerequisites and/or corequisites.

++ indicates any suffixed courses.

Admission Criteria:

1. Formal application and admission to the program.
2. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
3. Clinical health and safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.
5. This program is open to credentialed physicians, physical therapists, physician assistants, sonographers, and practitioners working in the musculoskeletal field.

Program Prerequisites: None

Required Courses (20 Credits):

- + DMS148 Introduction to Musculoskeletal Sonographic Imaging 1
- + DMS250 Musculoskeletal Sonography and Small Parts 2
- + DMS252 Musculoskeletal Procedures I 4
- + DMS254 Musculoskeletal Procedures II 4

- + DMS265 Musculoskeletal Clinical Practicum 4
- + DMS267 Musculoskeletal Case Studies 1
- + PTA152 Musculoskeletal Kinesiology and Assessment Techniques in Sonographic Imaging 4

MCCCD Governing Board Approval Date: June 26, 2018

Network and Cyber Fundamentals

5908 - Certificate of Completion (CCL) - (17 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/network-and-cyber-fundamentals-5908-ccl>

Description:

The Certificate of Completion (CCL) in Network and Cyber Fundamentals program is designed to focus on the necessary skills required to design and secure a network including the security of various systems and network devices. Emphasis is placed on developing the theoretical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of essential security disciplines. The Network and Cyber Fundamentals program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry and government. An Associate in Applied Science (AAS) is also available in this area.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Students should select from the following courses in consultation with a department advisor.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (17 Credits):

CIS126DL Linux Operating System 3

- + CIS270 Essentials of Network and Information Security (3) OR
- + ITS110 Information Security Fundamentals (3) 3

CNT140AB Introduction to Networks 4

+ CNT150AB Switching, Routing, and Wireless Essentials 4

MST150++ Any Microsoft Windows suffixed course 3

MCCCD Governing Board Approval Date: April 26, 2022

Nurse Assisting

5963N - Certificate of Completion (CCL) - (2-4.5 Credits)

Field of Interest: **Health Sciences**

For Information: Kristen Woods

Phone: 602-286-8568

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/nurse-assisting-5963n-ccl>

Description:

The Certificate of Completion (CCL) in Nurse Assisting prepares students for employment as a nurse assistant. The program combines classroom instruction with clinical laboratory practice and long-term care and/or acute care experiences. Students who complete the program are eligible to take a written and practical certification examination if desired to meet employment requirements to be a nurse assistant. Certification/licensing requirements are the exclusive responsibility of the Arizona State Board of Nursing.

The MCCC CD Nurse Assisting program is approved by the Arizona State Board of Nursing.

Waiver of Licensure/Certification Guarantee:

Admission or completion from the MCCC CD Nurse Assisting program does not guarantee obtaining a license or certificate to practice as a nurse assistant. Licensure and certification requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. §32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

All nurse assistant applicants for certification will be fingerprinted to permit the Department of Public Safety to obtain state and federal criminal history information. All applicants with a positive history are investigated. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602-899-5150).

Health Declaration:

It is essential that students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application.

Health and Safety Requirements for MCCC CD Nurse Assisting Program:

1. Students must meet and maintain health and safety requirements throughout the program.

2. Admission to a Maricopa County Community College District health program requires that students be in compliance with the MCCCDC Supplemental Background Check Policy. Evidence of a current Arizona Department of Public Safety Level One Fingerprint Clearance Card is required for program application.
3. Negative urine drug screen.

Grade Requirements:

Student must obtain a C grade or better in all courses.

University Transfer Students:

For students planning a university program:

Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

THE NURSE ASSISTING PATHWAY

The nurse assisting pathway is designed to prepare students to complete the Nurse Assistant certification/licensure through the Arizona State Board of Nursing to practice in a health care agency as a nurse assistant. Completion of the Nurse Assistant program of study provides job ready skills as a nurse assistant.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Admission Criteria:

Application and acceptance into the program, high school graduate or GED, and meet current health and safety course requirements.

Program Prerequisites: None

Required Courses (2-4.5 Credits):

+ NUR158 Nurse Assisting (4.5) OR

Advanced Placement course:

+ NCE150 Advanced Placement: Nurse Assisting (2) 2-4.5

MCCCDC Governing Board Approval Date: May 24, 2022

[Nursing Refresher](#)

5739N - Certificate of Completion (CCL) - (10 Credits)

Field of Interest: **Health Sciences**

For Information: Jeanette Peterson

Phone: 602-286-8484

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/nursing-refresher-5739n-ccl>

Description:

The Certificate of Completion (CCL) in Nursing Refresher program provides registered nurses with a review and update of nursing theory and practice. The goal of the program is to update and refine theoretical and practical nursing knowledge and facilitate the nurse's transition back into professional practice. The Nursing Refresher program is approved by the Arizona State Board of Nursing. Successful program completion satisfies the Arizona State Board of Nursing RN license renewal requirement for applicants who do not meet the practice mandate as stated in The Nurse Practice Act, R4-19312 (B).

Health Declaration: It is essential that Nursing Refresher students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses within the program.

Massachusetts Nurse of the Future Core Competencies are integrated into the student learning outcomes/program competencies.

Course Fee Information: Please see class schedule for information regarding course fees.

Admission Criteria:

Formal application and admission to the program is required.

All applicants must have an active or inactive Registered Nurse (RN) license that is eligible for renewal per Regulatory Board requirements or has successfully passed the RN licensing examination, but has never worked as a registered nurse.

All applicants must be eligible for issuance of an active or temporary registered nurse license.

All applicants must be in good standing with the Regulatory Board. RN's with restricted licenses are not eligible for the program. Once enrolled, students receiving any disciplinary actions against their license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student's participation in clinical experiences and involvement in patient care until the license is valid and unrestricted.

Health and Safety Requirements for the Nursing Refresher Program:

1. Students must submit a Health and Safety Documentation verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Students must provide a copy of their current and valid Level One Fingerprint Clearance Card upon application.

Program Prerequisites: None

Required Courses (10 Credits):

NUR295 Registered Nurse Refresher 10

MCCCD Governing Board Approval Date: December 9, 2014

Operating Room Nursing**5338 - Certificate of Completion (CCL) - (16 Credits)**

Field of Interest: **Health Sciences**

For Information: Brandy Thompson

Phone: 602-286-8516

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/operating-room-nursing-5338-ccl>

Description:

The Certificate of Completion (CCL) in Operating Room Nursing program is designed to provide a basic foundation of knowledge for the registered nurse interested in working in the operating room setting. Based on safety of patient care, the registered nurse will become knowledgeable of the "Association of Operating Room Nurses (AORN) Standards of Practice," perform operating room techniques in the scrub and circulator role and gain exposure to the general surgery arena. Clinical experience will allow the student to gain experience in the scrub and circulating role and learn the circulator's role in caring for the patient in pre-op holding, the operating room, and post-operative care environments. Upon meeting eligibility of the Competency & Credentialing Institute (CCI), students have the option to sit for CNOR certification.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

+ indicates course has prerequisites and/or corequisites.

Admission Criteria:

1. Current unencumbered Arizona Registered Nurse (RN) license.
2. Formal application and admission to the program.
3. Background Check Requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCD background check policy.
4. Clinical Health and Safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCD clinical health and safety policy.
5. Inability to comply with Background Check requirements and/or Clinical Health and Safety requirements at the start of classes may result in cancellation of enrollment.

Program Prerequisites: None**Required Courses (16 Credits):**

+ PON210 PeriOperative Principles I 3

+ PON212 PeriOperative Principles II 3

+ PON214 PeriOperative Laboratory 4

- + PON218 PeriOperative Clinical Practice I 3
- + PON220 PeriOperative Clinical Practice II 3

.MCCCD Governing Board Approval Date: November 26, 2019

Organizational Leadership

5731 - Certificate of Completion (CCL) - (18 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/organizational-leadership-5731-ccl>

Description:

The Certificate of Completion (CCL) in Organizational Leadership is designed to prepare students with knowledge and skills needed in today's changing workplace. The program provides leadership and communication skills and techniques for planning, organizing, leading and controlling business situations. This program also emphasizes procedures for effective resource allocation. The CCL in Organizational Leadership is fully embedded in an Associate in Applied Science (AAS) in Organizational Management.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

+ indicates course has prerequisites and/or corequisites.

Program Prerequisites: None

Required Courses (18 Credits):

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3

GBS110 Human Relations in Business and Industry (3) OR

MGT251 Human Relations in Business (3) 3

GBS120 Workplace Communication Skills 3

GBS151 Introduction to Business 3

MGT175 Business Organization and Management (3) OR

TQM240 Project Management in Quality Organizations (3) 3

MGT101 Techniques of Supervision (3) OR

MGT229 Management and Leadership I (3) 3

MCCCD Governing Board Approval Date: April 23, 2019

Pharmacy Technology

5248 - Certificate of Completion (CCL) - (16 Credits)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences>

Description:

The Certificate of Completion (CCL) in Pharmacy Technology prepares students for entry-level pharmacy practice in retail, hospital, and institutional settings. Students will process and prepare medications, dispense medications, and learn inventory and quality control practices. The program includes instruction in medical and pharmaceutical terminology, legal and regulatory standard, customer service, prescription analysis and interpretation, mathematical calculations for dosing and solution preparation, safety procedures, and billing practices. The curriculum for this program includes a 200-hour externship and meets the Pharmacy Technician Certification Board (PTCB) requirement for students to take the Pharmacy Technician Certification Exam (PTCE) or the National Healthcareer Association (NHA) Exam for the Certification of Pharmacy Technicians (ExCPT).

Program Notes:

The Certificate of Completion in Pharmacy Technology is currently not Title IV Federal Financial Aid eligible.

Students must earn a grade of C or better in each course in the program.

Admission Criteria:

1. Formal application and admission to the program.
2. Background Check Requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDCD background check policy.
3. Clinical Health and Safety Requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDCD clinical health and safety policy.
4. Inability to comply with Background Check Requirements and/or Clinical Health and Safety Requirements at the start of classes may result in cancellation of enrollment.

Program Prerequisites: None

Required Courses (16 Credits):

- + PHT150 Introduction to Pharmacy Practice 3
- + PHT153 Basic Pharmacy Practice 5
- + PHT155 Advanced Pharmacy Practice 5
- + PHT250 Pharmacy Technician Certification Review 1
- + PHT253 Pharmacy Technician Externship 2

MCCCDCD Governing Board Approval Date: March 22, 2022

Practical Nursing

5957 - Certificate of Completion (CCL) - (35-45 Credits)

Field of Interest: **Health Sciences**

For Information: Jeri Lastine

Phone: 602-286-8560

<https://www.gatewaycc.edu/degrees-certificates/nursing>

Description:

The Certificate of Completion (CCL) in Practical Nursing Program is available at seven of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. Practical Nursing Program graduates are eligible to apply for the national exam for the practical nurse license. Licensing requirements are the exclusive responsibility of the State Board of Nursing.

The Certificate of Completion Practical Nursing Program is approved by the Arizona State Board of Nursing.

Program offerings:

This program is offered at the following sites:

Chandler Gilbert Community College

Estrella Mountain Community College

GateWay Community College

Glendale Community College

Mesa Community College

Paradise Valley Community College

Phoenix College

Scottsdale Community College

Waiver of Licensure/Certification Guarantee:

Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

Level One Fingerprint Clearance is required for admission into the program. Applicants must present a Level One Fingerprint Clearance Card to be copied by the advisor or designee. For a Department of Public Safety Fingerprint Clearance Card application, contact MCCCDC Healthcare/Nursing Advisor. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602.771.7800).

Health Declaration:

It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. All must provide documentation of compliance with all health and safety requirements required to protect patient safety. Only students in compliance are permitted to enroll in nursing courses. Students will meet these requirements by providing the required documentation for the Health/Safety Requirements Documentation Checklist and the signed Health Declaration Form.

Health and Safety Requirements for the Nursing Program:

1. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCDCD background check policy.

University Transfer Students:

Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at the Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

PRACTICAL NURSE EXIT OPTION

Following completion of the practical nurse level program of study, the student is eligible to apply for licensure as a practical nurse. Licensed Practical Nurses (LPN) may be employed in acute, long-term, and community-based health care settings under the direction of a registered nurse. Practical Nurses function within their legal scope of practice and use professional standards of care in illness care and health promotion activities for clients and families across the life span.

The Associate in Applied Science (AAS) Nursing Program is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; (404.975.5000); email: info@acennursing.org.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Course Fee Information:

Please see class schedule for information regarding course fees.

MaricopaNursing is aligned with Nurse of the Future Competencies: Patient-Centered Care, Professionalism, Leadership, Systems-Based Practice, Informatics and Technology, Communication, Teamwork and Collaboration, Safety, Quality Improvement, and Evidence-Based Practice. These competencies focus on key stakeholders of healthcare clients, colleagues and communities. Demonstration of the competencies will signify preparation for successful transition into nursing practice and further professional development.

Admission Criteria:

High School diploma or GED is required for the Certificate of Completion in Practical Nursing. Applicants must signify that they meet this requirement by providing high school diploma/transcripts or GED completion OR by signing the nursing application page containing the `Declaration of High School Graduation or GED completion`. In some instances, high school diploma/transcripts or proof of GED completion may be required.

Formal application and admission to the program is required; all program prerequisites must be completed prior to submission.

A passing score on a nursing program admission test is required to complete an application.

The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was previously dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate as a Nursing Assistant and/or license as a Practical Nurse must remain in good standing with the Board of Nursing. Once enrolled, students receiving any disciplinary actions against their certificate or license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student's participation in clinical experiences and involvement in patient care until the certificate and/or license is valid and unrestricted.

Program Prerequisites (10-20 Credits):

The credit-hour range is subject to change depending on the student's educational experience.

- + BIO156 Introductory Biology for Allied Health (4) OR
- + BIO181 General Biology (Majors) I (4) OR
- One year of high school biology 0-4

- + BIO201 Human Anatomy and Physiology I 4

- + CHM130 Fundamental Chemistry (3) AND
- + CHM130LL Fundamental Chemistry Laboratory (1) OR
- + CHM130AA Fundamental Chemistry with Lab (4) OR
- One year of high school chemistry 0-4

- + ENG101 First-Year Composition (3) OR
- + ENG107 First-Year Composition for ESL (3) 3

- + MAT140 College Mathematics (5) OR
- + MAT141 College Mathematics (4) OR

+ MAT142 College Mathematics (3) OR
Satisfactory completion of higher level mathematics course 3-5

Students that are admitted into the MaricopaNursing Program for Fall 2015 and Spring 2016, AND completed MAT120, MAT121, or MAT122 prior to Fall 2015 as an admission requirement, may complete the program without completing MAT140, MAT141, or MAT142 as a graduation requirement, by waiver of the program director.

Required Courses (25 Credits):

- + BIO202 Human Anatomy and Physiology II 4
- + NUR152 Nursing Theory and Science I 9
- + NUR172 Nursing Theory and Science II 9
- + NUR191 Practical Nursing Transition 3

MCCCD Governing Board Approval Date: November 20, 2018

Red Hat Linux Administrator

5049N - Certificate of Completion (CCL) - (6-9 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/red-hat-linux-administrator-5049n-ccl>

Description:

The Certificate of Completion (CCL) in Red Hat Linux Administrator program is designed to help prepare students for employment or to improve current professional skills. The program includes Red Hat Enterprise Linux system basics and management including sophisticated manipulation of file structures, backup systems, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, and system resource control. This program helps prepare students for the Red Hat Certified System Administrator (RHCSA) certification exam. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (6-9 Credits):

CIS105 Survey of Computer Information Systems (3) OR
Permission of program director (0) 0-3

CIS126RH Red Hat System Administration I 3
+ CIS238RH Red Hat System Administration II 3

MCCCD Governing Board Approval Date: November 26, 2019

[Red Hat Linux Engineer](#)

5050N - Certificate of Completion (CCL) - (9-12 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/red-hat-linux-engineer-5050n-ccl>

Description:

The Certificate of Completion (CCL) in Red Hat Linux Engineer program is designed to help prepare students for employment or to improve current professional skills. The program includes in depth Red Hat Enterprise Linux system networking including integrating Linux servers and workstations into a network environment with multi-platform network operating systems with a variety of open-standard and proprietary protocols. This program helps prepare students for the Red Hat Certified System Administrator (RHCSA) and Red Hat Certified Engineer (RHCE) certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces: CCL/5204N Linux Professional

Program Prerequisites: None

Required Courses (9-12 Credits):

CIS105 Survey of Computer Information Systems (3) OR
Permission of Program Director (0) 0-3

CIS126RH Red Hat System Administration I 3
+ CIS238RH Red Hat System Administration II 3
+ CIS240RH Red Hat System Administration III 3

MCCCD Governing Board Approval Date: December 10, 2019

Retail Management

5286 - Certificate of Completion (CCL) - (24 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management>

Description:

The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in the retail industry, and related fields, for the industry training needs in supervision and management, marketing, financial management, and business planning. The curriculum encompasses several business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. An Associate in Applied Science (AAS) in Retail Management is also available.

Program Notes:

Students must earn a grade of C or better required for all courses within the program.

Program Prerequisites: None

Required Courses (24 Credits):

ACC111 Accounting Principles I (3) OR
ACC211 Financial Accounting (3) 3

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

COM100 Introduction to Human Communication 3

MGT101 Techniques of Supervision (3) OR
MGT229 Management and Leadership I (3) 3

MGT251 Human Relations in Business 3
MGT180 Retail Management 3

MGT276 Human Resources Management 3
MKT271 Principles of Marketing 3

MCCCD Governing Board Approval Date: June 22, 2021

Securities Industry Essentials

5907 - Certificate of Completion (CCL) - (16 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management>

Description:

The Certificate of Completion (CCL) in Securities Industry Essentials builds the industry knowledge and skills for individuals to prepare for careers in Financial Services. This CCL will introduce students new to or interested in financial services to the fundamental concepts of capital markets, types of products and their risks, trading, customer accounts, prohibited activities, and regulatory agencies and their functions. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of security industry jobs. This CCL also helps to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE). A Certificate of Completion (CCL) and Associate in Applied Science (AAS) in Banking and Finance are also available.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

This Certificate of Completion (CCL) is intended for current or prospective securities industry professionals who are interested in expanding their knowledge in the area of financial securities to enhance their employment opportunities.

Program Prerequisites: None

Required Courses (16 Credits):

GBS120 Workplace Communication Skills 3

GBS151 Introduction to Business 3

GBS261 Investments I 3

GBS261LL Securities Industry Essentials (SIE) Exam Prep 1

MGT126 Customer Service Skills and Strategies 3

MKT267 Principles of Sales (3) OR

MKT271 Principles of Marketing (3) 3

Recommend MKT267 if career goal in the field of finance is sales.

MCCCD Governing Board Approval Date: March 22, 2022

Security Industry Essentials: Pre-licensure

5931N - Certificate of Completion (CCL) - (4 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/security-industry-essentials-pre-licensure-5931n-cc>

Description:

The Certificate of Completion (CCL) in Security Industry Essentials: Pre-licensure is designed to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination required for entry-level positions in the security industry.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in each course in the program.

Program Prerequisites: None

Required Courses (4 Credits):

GBS261 Investments I 3

GBS261LL Securities Industry Essentials (SIE) Exam Prep 1

MCCCD Governing Board Approval Date: May 24, 2022

Small Business Management Level I

5153N - Certificate of Completion (CCL) - (10-12 Credits)

Field of Interest: **Business, Entrepreneurialism and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/small-business-management-level-i-5153n-cc>

Description:

The Certificate of Completion (CCL) in Small Business Management Level I program is designed to meet the needs of individuals who wish to own and/or manage a small business. Prepares students to acquire the skills, tools and knowledge necessary for successful start-up and operations of a business.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better required for all courses within the program.

+ indicates course has prerequisites and/or corequisites

Program Prerequisites: None

Required Courses (10-12 Credits):

EPS195 Business Start-Up and Planning (2) OR
+ SBS216 Planning for a Small Business (2) OR
MGT253 Owning and Operating a Small Business (3) 2-3

SBS200 Small Business Operations 2

SBS202 Small Business Bookkeeping and Tax Preparation (1) AND
SBS203 Financing and Cash Management for a Small Business (1) OR
SBS230 Financial and Tax Management for Small Business (2) 2

SBS204 Small Business Marketing and Advertising (2) OR
SBS220 Internet Marketing for Small Business (2) OR
MKT271 Principles of Marketing (3) 2-3

SBS213 Hiring and Managing Employees 1
SBS214 Small Business Customer Relations 1

MCCCD Governing Board Approval Date: May 28, 2019

Small Business Management Level II

5978 - Certificate of Completion (CCL) - (16-18 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/small-business-management-level-ii-5978-ccl>

Description:

The Certificate of Completion (CCL) in Small Business Management Level II program is designed to focus on aspects critical to a specific individual's small business. Prepares students to acquire additional skills, tools and knowledge necessary for successful start-up and operations of a business. A Certificate of Completion (CCL) in Small Business Management Level I is also available and fully embedded in this program.

Program Notes:

Students must earn a grade of C or better for all courses within the program.

Program Prerequisites: None**Required Courses (10-12 Credits):**

EPS195 Business Start-Up and Planning (2) OR
+ SBS216 Planning for a Small Business (2) OR
MGT253 Owning and Operating a Small Business (3) 2-3

SBS200 Small Business Operations 2

SBS202 Small Business Bookkeeping and Tax Preparation (1) AND
SBS203 Financing and Cash Management for a Small Business (1) OR
SBS230 Financial and Tax Management for Small Business (2) 2

SBS204 Small Business Marketing and Advertising (2) OR
SBS220 Internet Marketing for Small Business (2) OR
MKT271 Principles of Marketing (3) 2-3

SBS213 Hiring and Managing Employees 1
SBS214 Small Business Customer Relations 1

Restricted Electives (6 Credits):

Choose 6 credits from the restricted electives below. Courses cannot be shared with Required Courses.

EPS150 Introduction to Entrepreneurship 3
EPS195 Business Start-Up and Planning 2
MGT253 Owning and Operating a Small Business 3
MKT271 Principles of Marketing 3
SBS202 Small Business Bookkeeping and Tax Preparation 1
SBS203 Financing and Cash Management For a Small Business 1
SBS204 Small Business Marketing and Advertising 2
+ SBS216 Planning for a Small Business 2
SBS217 Starting/Managing a Home Business 1
SBS220 Internet Marketing for Small Business 2
SBS221 Social Media Marketing for Small Business 2
SBS230 Financial and Tax Management for Small Business 2

MCCCD Governing Board Approval Date: May 28, 2019

State Service Leadership: ADOT Leads

5337N - Certificate of Completion (CCL) - (12 Credits)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Tina Wixom

Phone: 602-286-8945

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/state-service-leadership-adot-leads-5337n-ccl>

Description:

The Certificate of Completion (CCL) in State Service Leadership: ADOT Leads is designed exclusively for current Arizona Department of Transportation (ADOT) employees preparing for supervisory/managerial positions within the organization. Instruction focuses on the development of leadership skills, including the fundamental concepts of professionalism, organizational culture and management, characteristics of effective teams, conflict resolution, motivation, systems-thinking, problem-solving, and coaching.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for all courses required within the program.

Admission Criteria:

This program is offered through an educational partnership. Employment by the partnership organization is required for admission and approval from the GateWay Apprenticeship Office.

Program Prerequisites: None

Required Courses (12 Credits):

MGT290 Leadership Through Continuous Improvement: Leading Self 3

MGT291 Supervisor Essentials: Aspire to Lead 3

MGT292 Employee Coaching and Development: Leading Others 3

MGT293 Collaborative Leadership: Leading Teams 3

MCCCD Governing Board Approval Date: November 23, 2021

[VMware Foundations](#)

5035N - Certificate of Completion (CCL) - (4 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/vmware-foundations-5035n-ccl>

Description:

The Certificate of Completion (CCL) in VMware Foundations program is designed to help students prepare for VMware industry certifications and work in a variety of information technology environments including software defined data centers. The program introduces vSphere and VMware ESXi server in the enterprise and covers many aspects of virtualization for VMware ESXi server administration. It is designed to prepare students for the VMware Foundations (VCA) certification exam. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Admission Criteria:

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the prerequisites to the courses within the Required Courses area as follows OR receive permission of the Program Director:

CIS105 Survey of Computer Information Systems 3

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support (3) AND
+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Windows Operation Course (3) 3-6

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (3) 3

Students also have the option to complete the full CCL in this program, VMware Network Administrator (major code 5032), that includes the prerequisites and required courses.

Program Prerequisites: None

Required Courses (3 Credits):

+ CIS197 VMware ESXi Server Enterprise 3

MCCCD Governing Board Approval Date: February 25, 2020

VMware Systems Administrator

5033N - Certificate of Completion (CCL) - (6 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/vmware-systems-administrator-5033n-ccl>

Description:

The Certificate of Completion (CCL) in VMware Systems Administrator program is designed to help students prepare for VMware industry certifications and work in a variety of information technology environments including software defined data centers. The program introduces vSphere and VMware ESXi server in the enterprise and covers many aspects of virtualization for VMware ESXi server administration. It includes advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure and is designed to prepare students for the VMware VCA and VCP certification exams. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to

help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Admission Criteria:

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the prerequisites to the courses within the Required Courses area as follows OR receive permission of the Program Director:

CIS105 Survey of Computer Information Systems 3

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support (3) AND
+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Windows Operation Course (3) 3-6

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (3) 3

Students also have the option to complete the full CCL in this program, VMware Network Administrator (major code 5032), that includes the prerequisites and required courses.

Program Prerequisites: None

Required Courses (6 Credits):

+ CIS197 VMware ESXI Server Enterprise 3
+ CIS198 VMware vSphere: Optimize and Scale 3

MCCCD Governing Board Approval Date: February 25, 2020

Water and Wastewater Treatment

5136 - Certificate of Completion (CCL) - (27-32 Credits)

Field of Interest: **Applied Technology**

For Information: Craig Urbanski

Phone: 602-286-8616

Description:

The Certificate of Completion (CCL) in Water and Wastewater Treatment program is designed to provide students with knowledge and skills to meet the challenges of working in a wastewater plant. Students will understand the effective operation and maintenance of wastewater treatment, wastewater collection systems, and wastewater labs. The program assists students in their preparation for Arizona Department of Environmental Quality (ADEQ) examinations.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

+ indicates course has prerequisite and/or corequisites.

This program replaces: CCL/5142 Water Treatment

Admission Criteria:

A high school diploma OR GED equivalency is required. Placement into MAT120, MAT121, MAT122, MAT150, MAT151, MAT152, or higher level mathematics course for which College Algebra is a prerequisite.

Program Prerequisites: None

Required Courses (27-32 Credits):

- + MAT120 Intermediate Algebra (5) OR
 - + MAT121 Intermediate Algebra (4) OR
 - + MAT122 Intermediate Algebra (3) OR
 - + MAT150 College Algebra/Functions (5) OR
 - + MAT151 College Algebra/Functions (4) OR
 - + MAT152 College Algebra/Functions (3) OR
- Higher-level course with an [MA] general designation for which College Algebra is a prerequisite (3-5)
OR
Waiver of the math requirement by the Program Director. (0) 0-5

- + WRT100 Introduction to Water Resources 3
- + WRT110 Principles of Water Treatment Plant Operations 3
- + WRT115 Water Technology Calculations 3
- + WRT121 Operation of Wastewater Treatment Plants 3
- + WRT131 Wastewater Collection Systems Operation and Maintenance 3
- + WRT134 Water Distribution System Operation and Maintenance 3
- + WRT140 Water Quality for Treatment Industry 5
- WRT190AA Water Resources Technologies Seminar 1
- + WRT204 Water/Wastewater Mechanical Systems, Power, and Instrumentation 3

MCCCD Governing Board Approval Date: November 26, 2019

Web App Development

5835N - Certificate of Completion (CCL) - (9-12 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/web-app-development-5835n-ccl>

Description:

The Certificate of Completion (CCL) in Web App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on web apps. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificates of Completion (CCL) in Mobile App Development and Cross-Platform App Development.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for all courses within the program.

Students should consult with a Department Advisor in arranging their schedules.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (9-12 Credits):

CIS105 Survey of Computer Information Systems (3) OR

Permission of Program Director, Department or Division Chair (0) 0-3

+ CIS133DA Internet/Web Development Level I 3

+ CIS166AA Introduction to JavaScript 3

+ CIS233DA Internet/Web Development Level II 3

MCCCD Governing Board Approval Date: December 10, 2019

Web Development

5988 - Certificate of Completion (CCL) - (39 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/web-development-5988-ccl>

Description:

The Certificate of Completion (CCL) in Web Development prepares students to create and administer interactive and professional websites. The program provides students with knowledge and skills in developing dynamic websites, client and server side programs, database structures, and object-oriented design. A Certificate of Completion (CCL) in Web Design and an Associate in Applied Science (AAS) in Web Design/Development are also available.

Program Notes:

Students must earn a grade of C or better in each course in the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This program replaces:

CCL/5051 Web Developer

CCL/5060 Web Developer

CCL/5168 Web Development and Graphic Design

CCL/5346 Web Development

Program Prerequisites: None

Required Courses (36 Credits):

The following courses are required and included in the CCL in Web Foundations:

- CIS105 Survey of Computer Information Systems 3
- CIS120DF Introduction to Adobe Photoshop 3
- CIS133DA Internet/Web Development Level I 3
- CIS136 Content Management Systems: WordPress 3
- + CIS166AA Introduction to Javascript 3
- + CIS233DA Internet/Web Development Level II 3
- + CIS235 e-Commerce 3

The following courses are required for the CCL in Web Development:

- + CIS166AE Web Scripting with PHP: Hypertext Preprocessor (PHP) 3
- + CIS119DO Introduction to Oracle: SQL (3) OR
- + CIS276++ Any Database Management Systems course (3) 3

- CIS126DL Linux Operating System (3) OR
- CIS126RH Red Hat System Administration I (3) 3

Programming Language: Select two courses for a total of 6 credits

- + CIS150AB Object-Oriented Programming Fundamentals 3
- + CIS156 Python Programming: Level I 3
- + CIS159 Visual Basic Programming I 3
- + CIS162++ Any C Programming course 3
- + CIS163AA Java Programming: Level I 3
- + CIS165++ Any Mobile Application Development course 3
- + CIS256 Python Programming: Level II 3

- + CIS262AD C# Level II 3
- + CIS263AA Java Programming: Level II 3
- + CIS265++ Any Advanced Application Development course 3

Restricted Electives (3 Credits):

Students should select any course with a CIS prefix in consultation with their program advisor to further develop skills in the areas of Databases, Information Systems, Programming, and/or Operating Systems. 3

MCCCD Governing Board Approval Date: February 23, 2021

Windows App Development

5833N - Certificate of Completion (CCL) - (9-12 Credits)

Field of Interest: **Computer and Information Technology**

For Information: Wyatt Johnson

Phone: 602-286-8587

<https://www.gatewaycc.edu/degrees-certificates/computer-and-information-technology/windows-app-development-5833n-ccl>

Description:

The Certificate of Completion (CCL) in Windows App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on Windows platform and cross-platform apps. This CCL will help prepare students to take the MTA Software Development Fundamentals C# certification. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificates of Completion (CCLs) in Cross-Platform App Development and Mobile App Development.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students should consult with a Department Advisor in arranging their schedules.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites: None

Required Courses (9-12 Credits):

CIS105 Survey of Computer Information Systems (3) OR

Permission of Program Director, Department or Division Chair (0) 0-3

+ CIS162AD C#: Level I 3

+ CIS165DB C#/VB.NET: Windows 8 App Development (3) OR

+ CIS165DC Xamarin/C# Cross Platform Development (3) 3

+ CIS262AD C# Level II 3

MCCCD Governing Board Approval Date: December 10, 2019

Certificates of Competency

Accelerated Basic Phlebotomy (Day) ⓘ

1409N - Certificate of Competency (CCT) - (180 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/accelerated-basic-phlebotomy-day-1409n-cct>

Description:

The Certificate of Competency (CCT) in Accelerated Basic Phlebotomy program is designed to prepare a person to obtain blood specimens by skin puncture and venipuncture. The phlebotomist may find employment in hospitals, patient service centers, life insurance companies, doctors` offices, outreach services, and donor centers. Students in the Phlebotomy program will be in contact with potentially infectious blood, tissues, and body fluids. During this program, eligible students will have the opportunity to take the national certification exam.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students will be required to have a minimum of 50 successful live draws to sit for the national certification examination. The expense of the examination is the student's responsibility.

Students wishing to attend a clinical site rotation should enroll in the Clinical Phlebotomy program or enroll in PLC122 upon completion of the Accelerated Basic Phlebotomy program.

Students must meet all required program competencies in order to receive a passing grade. This program is a P (pass) or Z (no pass) graded program.

Admission Criteria:

18 years of age to enroll.

Program Prerequisites: None

Required Courses (180 Clock Hours):

+ PLC109 Phlebotomy Basic Skills 90

+ PLC111 Specimen Processing and Advanced Techniques in Phlebotomy 90

Clock Curriculum Committee Approval Date: 12-9-2022

Accelerated Basic Phlebotomy (Night) ⓘ

1412N - Certificate of Competency (CCT) - (180 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/accelerated-basic-phlebotomy-night-1412n-cct>

Description:

The Certificate of Competency in Accelerated Basic Phlebotomy program is designed to prepare a person to obtain blood specimens by skin puncture and venipuncture. The phlebotomist may find employment in hospitals, patient service centers, life insurance companies, doctors` offices, outreach services, and donor centers. Students in the Phlebotomy program will be in contact with potentially infectious blood, tissues, and body fluids. During this program, eligible students will have the opportunity to take the national certification exam.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students will be required to have a minimum of 50 successful live draws to sit for the national certification examination. The expense of the examination is the student's responsibility.

Students wishing to attend a clinical site rotation should enroll in the Clinical Phlebotomy program or enroll in PLC122 upon completion of the Accelerated Basic Phlebotomy program.

Students must meet all required program competencies in order to receive a passing grade. This program is a P (pass) or Z (no pass) graded program.

Admission Criteria:

18 years of age to enroll.

Program Prerequisites: None

Required Courses (180 Clock Hours):

+ PLC109 Phlebotomy Basic Skills 90

+ PLC111 Specimen Processing and Advanced Techniques in Phlebotomy 90

Clock Curriculum Committee Approval Date: 12-9-2022

[Accelerated Ophthalmic Medical Assistant](#) 

1510N - Certificate of Competency (CCT) - (360 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/accelerated-ophthalmic-medical-assistant-1510n-cct>

Description:

The Certificate of Competency (CCT) in Accelerated Ophthalmic Medical Assisting is a 360-hour program that will introduce students to learning and understanding the core level of care for entry into the fascinating world of eye care in a clinical setting. The program will focus on learning how to assist and work with ophthalmologists and opticians.

The program content includes a variety of skills associated with patient services and assisting with minor surgical procedures, instrument care and maintenance. Special attention will be given to complete comprehensive eye examinations, including chief complaints, history taking, anatomy and physiology of the visual system, eye terminology, general medical knowledge, and hands-on skill instruction.

This program serves as a pathway to excellent job opportunities and a lifelong and challenging career in ophthalmology. Students will also participate in a 200-hour unpaid clinical externship at the conclusion of the program.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students will be required to take a randomized urine drug screen and submit a negative result prior to being eligible to participate in the 120-hour clinical externship. The expense of the urine drug screen is the student's responsibility.

Externship hours are site specific and may require attendance any day of the week, including during unscheduled days and times.

The Ophthalmic Medical Assistant program serves as a pathway to excellent job opportunities and a lifelong and challenging career with the future opportunity of becoming a Certified Ophthalmic Assistant (COA).

Students must earn a grade of C or better in each course in the program.

Admission Criteria:

1. Background check requirements:
Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCD Background Check Policy.
2. Clinical health and safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCD Clinical Health and Safety Policy.
3. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.
4. 18 years of age to enroll.

Program Prerequisites: Program admission

Required Courses (360 Clock Hours):

+ OPH105 Ocular and Refractive Clinical Assessment, Skills, and Procedures 240

+ OPH190 Ophthalmic Assisting Externship 120

Clock Curriculum Committee Approval Date: 3-10-2023

Accelerated Pharmacy Technician

1407N - Certificate of Competency (CCT) - (424 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/accelerated-pharmacy-technician-1407n-cct>

Description:

The Certificate of Competency (CCT) in Accelerated Pharmacy Technician prepares students for entry-level pharmacy practice in retail, hospital, and institutional settings. Students will process and prepare medications, dispense medications, and learn inventory and quality control practices. The program includes instruction in medical and pharmaceutical terminology, legal and regulatory standard, customer service, prescription analysis and interpretation, mathematical calculations for dosing and solution preparation, safety procedures, and billing practices. The curriculum for this program includes a 160-hour externship and meets the Pharmacy Technician Certification Board (PTCB) requirement for students to take the Pharmacy Technician Certification Exam (PTCE) or the National Healthcareer Association (NHA) Exam for the Certification of Pharmacy Technicians (ExCPT).

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in each course in the program.

Admission Criteria:

1. 18 years of age to enroll.
2. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
3. Clinical health and safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.

Program Prerequisites: Program admission

Required Courses (425 Clock Hours):

+ PHC150 Introduction to Pharmacy Practice 60

+ PHC153 Basic Pharmacy Practice 90

+ PHC155 Advanced Pharmacy Practice 90

- + PHC122 Pharmacy Technician Certification Review 24
- + PHC253 Pharmacy Technician Practicum 160

Clock Curriculum Committee Approval Date: 4-14-2023

Aesthetician (24 Hours Per Week)

1180 - Certificate of Competency (CCT) - (600 Clock Hours)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Jennifer Swan

Phone: 602-392-5250

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/aesthetician-24-hours-week-1180-cct>

Description:

The Certificate of Competency (CCT) in Aesthetician provides students with theoretical knowledge and practical skills needed to perform comprehensive professional aesthetics treatments including facial treatments, body treatments, skin resurfacing, and hair removal. The program also provides training in safety and infection control procedures and an overview of career and business planning. This program meets the requirements to apply for the Arizona State Board of Barbering and Cosmetology (AZBOC) aesthetics licensing exam.

Program Notes:

Students must successfully pass each course with a minimum grade of 80% and complete 100% of the course hours required in order to continue on to the next course.

Students may apply for graduation from the Aesthetics program upon successful completion of their program hours and a score of 80% or higher.

Completion of the program does not guarantee students an aesthetician license (in any state).

The Arizona State Board of Barbering and Cosmetology may deny a student's application if it is determined that they do not meet citizenship and/or high school education requirements if under the age of 18. If students have concerns about their citizenship status and/or high school education requirements, they are strongly encouraged to immediately contact the Arizona State Board of Barbering and Cosmetology via its website: [HTTPS://BOC.AZ.GOV](https://BOC.AZ.GOV), give full disclosure of their situation, and save any written response.

GateWay Community College will not give refunds or be held liable for graduates who do not receive an Arizona aesthetician license.

Admission Criteria: None

Program Prerequisites: None

Required Courses (600 Clock Hours):

EST102 Aesthetics Fundamentals 200

EST110 Advanced Aesthetics 200

Clock Curriculum Committee Approval Date: 5-12-2023

Aesthetics Instructor ⓘ

1195N - Certificate of Competency (CCT) - (350 Clock Hours)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Jennifer Swan

Phone: 602-392-5250

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/aesthetics-instructor-1195n-cct>

Description:

The Certificate of Competency (CCT) in Aesthetics Instructor program will prepare students to provide instruction for the Aesthetician program students. Additionally, students will learn how to write and deliver a successful lesson plan, and will graduate from the program with the skills necessary for establishing and maintaining an effective classroom. Topics also include knowledge of laws pertaining to the Arizona State Board of Cosmetology, safety and sanitation, and state board regulations. Upon completing the Aesthetics Instructor program, students will be prepared to take the Arizona State Board of Barbering and Cosmetology's Instructor licensing exam.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must complete all required competencies and clock hours as well as receive a score of 80% or higher in the Aesthetics Instructor program in order to be eligible to apply for a certificate of competency. However, a certificate of competency does not guarantee graduates are an instructor in any state. Students must pass the Arizona state board licensing exam in order to teach in Arizona. The Arizona State Board of Barbering and Cosmetology can deny an application should it be determined that a candidate does not meet the requirements for citizenship and/or high school education requirements. If students have any concerns meeting these requirements, students are strongly encouraged to contact the Arizona State Board of Barbering and Cosmetology directly via its website: [HTTPS://BOC.AZ.GOV](https://BOC.AZ.GOV), give full disclosure of the situation and save any written response. GateWay Community College is not liable for graduates who do not receive an Arizona instructor license and will not give refunds for tuition and fees. Completion of this program is not a guarantee of employment.

Admission Criteria:

1. Must hold current Arizona Aesthetician license in good standing.
2. Must have one year of industry work experience.

Program Prerequisites: None

Required Courses (350 Clock Hours):

- + COS250 Instructor In Training Orientation 80
- + COS251 Instructor In Training I 135
- + COS252 Instructor In Training II 135

Clock Curriculum Committee Approval Date: 5-12-2023

Apprentice Meat Cutter ⌚

1720 - Certificate of Competency (CCT) - (644 Clock Hours)

Field of Interest: **Business, Entrepreneurialism and Management**

For Information: James (Jay) Hernandez

Phone: 602-238-4374

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/apprentice-meat-cutter-1720-cct>

Description:

The Certificate of Competency (CCT) for Apprentice Meat Cutter explores proper safety and maintenance of hand tools and all power equipment used in the meat cutting industry, including a variety of knives, meat saws, meat grinders, meat tenderizers and meat slicers. Identify, cut, wrap, weigh and display all retail cuts of meat for sale in a retail environment. Maintain and merchandise a retail meat case and manage inventory. Gain experience filling customer orders. Break down and process a variety of meats like elk, deer, antelope and javelina, whole cattle, hogs and lamb. Perform tasks while maintaining industry safety and sanitation standards.

Program Notes:

Food Handlers Card is completed in class and required before working in the lab.

Admission Criteria:

Must be able to lift 50 pounds.

Must be able to stand for extended periods of time.

Must be able to work in cold/freezing temperatures.

Program Prerequisites: None

Required Courses (644 Clock Hours):

MCP100 Basics of Meat Cutting 146

MCP101 Introduction to Meat Clerk 146

MCP103 Meat Fabrication 176

MCP104 Merchandising 176

Clock Curriculum Committee Approval Date: 2-11-2022

CNC Machining I (Day) ⌚

1101 - Certificate of Competency (CCT) - (798 Clock Hours)

Field of Interest: **Applied Technology**

For Information: James (Jimbo) Smith

Phone: 602-238-4383

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/cnc-machining-i-day-1101-cct>

Description:

The Level I Certificate of Competency (CCT) in CNC Machining I prepares students for employment as entry-level operators and technicians in the manufacturing industry. The program provides applied skills in process planning, quality control, setup and operation of manual/computer numeric control (CNC) machines for current and future needs of the manufacturing industry. This program introduces students to manual data programming and CAD/CAM. A CCL in Machining II and an Associate of Applied Science (AAS) in Manufacturing and Production Technology are also available.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

Admission Criteria: None

Program Prerequisites: None

Required Courses (798 Clock Hours):

MFC101 Technical Documentation 84

MFC110 Inspection Techniques 72

MFC111 Geometric Dimensioning and Tolerance 102

MFC113 Coordinate Measuring Machines I (CMM) 84

MFC120 Introduction to Manual Machining 168

MFC131DC CNC Machining Level I 216

MFC140DC Manual CNC Programming 72

Clock Curriculum Committee Approval Date: 3-10-2023

Collision Repair Technician (Day) ⓘ

1606 - Certificate of Competency (CCT) - (624 Clock Hours)

Field of Interest: **Applied Technology**

For Information: Brent Cooper

Phone: 602-238-4388

<https://www.maricopa.edu/degrees-certificates/applied-technology/collision-repair-technician-day-1606-cct>

Description:

The Certificate of Competency (CCT) in Collision Repair Technician gives students the knowledge and hands-on experience to start a career in the automotive collision repair industry. Learn about metal and plastic repair, metal inert gas (MIG) welding, vehicle disassembly, refinishing, reassembly, estimate reading, coolant removal/replacement, and air conditioning (A/C) discharge/recharge and industry terminology.

Program Notes:

National certifications are obtained through the Inter-Industry Conference on Auto Collision Repair (I-CAR) for the following: Non-Structural Technician ProLevel 1, Refinish Technician ProLevel 1.

Admission Criteria:

Must be able to lift 50 pounds.

Program Prerequisites: None

Required Courses (624 Clock Hours):

ABO103 Introduction to Auto Body Repair 156

ABO104 Introduction to Automotive Refinishing 156

ABO203 Advanced Automotive Body Repair 156

ABO204 Advanced Refinishing Fundamentals 156

Clock Curriculum Committee Approval Date: 2-11-2022

Construction Trades: Electrical (Day) 

1106N - Certificate of Competency (CCT) - (420 Clock Hours)

Field of Interest: **Applied Technology**

For Information: Rachel Phethean

Phone: 602-238-4392

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/construction-trades-electrical-day-1106n-cct>

Description:

The Certificate of Competency (CCT) in Construction Trades: Electrical program is designed to provide beginning knowledge, safety, and skills in the electrical construction trade. This program is an introduction to common construction to include use of tools, safety, codes, installation of circuitry, equipment, construction drawings, and a basic understanding of electricity. Students can seek employment as electrical technicians on residential and commercial job sites. A Certificate of Completion and an Associate in Applied Science in Construction Trades are also available.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

There is an equivalent certificate of completion and equivalent credit-hour courses available.

Admission Criteria: None

Program Prerequisites: None

Required Courses (420 Clock Hours):

ELR131 Electrical Systems 140

ELR132 Distribution Panels, Wiring, and Circuit Protection in Electrical Systems 140

ELR133DC Conduit, Raceways and Termination in Electrical Systems 140

Clock Curriculum Committee Approval Date: 11-10-2022

Construction Trades: Electrical, Commercial and Residential (Day)

1114 - Certificate of Competency (CCT) - (630 Clock Hours)

Field of Interest: **Applied Technology**

For Information: Rachel Phethean

Phone: 602-238-4392

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/construction-trades-electrical-commercial-and-residential-day-1114-cct>

Description:

The Certificate of Competency (CCT) in Construction Trades: Electrical Commercial and Residential program is designed to provide knowledge, safety, and skills in the electrical construction trade. This program reinforces common construction skills to include use of tools, adherence to safety and codes, and reading construction drawings. This award offers further theory and practice in commercial and specialty electrical, to include work with electric power distribution, motors and motor controls, specialty electrical lighting and services, and electrical currents. Students can seek employment as electrical technicians on residential and commercial job sites. A Certificate of Completion (CCL) and an Associate in Applied Science in Construction Trades are also available.

Program Notes:

Students must earn a grade of C or better in all courses within the program.

There is an equivalent certificate of completion and equivalent credit-hour courses available.

Admission Criteria: None

Program Prerequisites: None

Required Courses (630 Clock Hours):

ELR131 Electrical Systems 140

ELR132 Distribution Panels, Wiring, and Circuit Protection in Electrical Systems 140

ELR133DC Conduit, Raceways and Termination in Electrical Systems 140

ELR234DC Electric Power Distribution 70

ELR235DC Motors: Theory and Application 70

ELR236DC Industrial Wiring Applications 70

Clock Curriculum Committee Approval Date: 11-10-2022

Cosmetologist (32 Hours Per Week)

1193 - Certificate of Competency (CCT) - (1500 Clock Hours)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Toni Peoples

Phone: 602-392-5263

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/cosmetologist-32-hours-week-1193-cct>

Description:

The Certificate of Competency (CCT) in Cosmetologist program will prepare students with the skills and knowledge necessary for establishing and maintaining a clientele, state laws pertaining to cosmetologists, as well as business management skills to start and manage a salon. As a cosmetologist, students will provide beauty services such as shampooing and conditioning, cutting, coloring, perming, and styling hair. Additionally, students will braid, press, curl and relax hair, design hairstyles, and provide nail and skin services. All work will be performed safely using proper disinfection and sanitation techniques. Upon completing the Cosmetologist program, students will be prepared to sit for the Arizona State Board of Barbering and Cosmetology licensing exam.

Program Notes:

Students must successfully pass each course with a minimum grade of 80% and 100% of the course hours required in order to continue on to the next course. Students may apply for graduation from the Cosmetologist program upon successful completion of the program hours and a score of 80% or higher. Completion of the program does not guarantee a cosmetologist license (in any state). The Arizona State Board of Barbering and Cosmetology may deny an application if it's determined that the student does not meet citizenship and/or high school education requirements if under the age of 18. If students have concerns about their citizenship status and/or high school education requirements, they are strongly encouraged to immediately contact the Arizona State Board of Barbering and Cosmetology via its website: [HTTPS://BOC.AZ.GOV](https://BOC.AZ.GOV), give full disclosure of their situation, and save any written response. GateWay Community College will not give refunds or be held liable for graduates who do not receive an Arizona cosmetologist license.

Admission Criteria: None**Program Prerequisites: None****Required Courses (1500 Clock Hours):**

- COS104 Hair Essentials I 200
- + COS106 Hair Essentials II 200
- + COS114 Student Salon 1 200
- + COS116 Student Salon 2 200
- + COS119 Nail Essentials 200
- + COS212 Skin Essentials 200
- + COS214 Student Salon 3 200
- + COS218 Cosmetology State Licensure Focus 100

Clock Curriculum Committee Approval Date: 5-12-2023

[Cosmetology Instructor](#) **1192N - Certificate of Competency (CCT) - (350 Clock Hours)**

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Toni Peoples

Phone: 602-392-5263

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/cosmetology-instructor-1192n-cct>

Description:

The Certificate of Competency (CCT) in Cosmetology Instructor program will prepare students to provide instruction for the Cosmetology program students. Additionally, students will learn how to write and deliver a successful lesson plan, and will graduate from the program with the skills necessary for establishing and maintaining an effective classroom. Topics also include knowledge of laws pertaining to the Arizona State Board of Cosmetology, safety and sanitation, and state board regulations. Upon completing the Cosmetology Instructor program, students will be prepared to take the Arizona State Board of Barbering and Cosmetology's Instructor licensing exam.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must complete all required competencies and clock hours as well as receive a score of 80% or higher in the Cosmetology Instructor Program in order to be eligible to apply for a certificate of competency. However, a certificate of competency does not guarantee graduates are an Instructor in any state. Students must pass the Arizona State Board licensing exam in order to teach in Arizona. The Arizona State Board of Barbering and Cosmetology can deny an application should it be determined that a candidate does not meet the requirements for citizenship and/or high school education requirements. If students have any concerns meeting these requirements, students are strongly encouraged to contact the Arizona State Board of Barbering and Cosmetology directly via its website: [HTTPS://BOC.AZ.GOV](https://BOC.AZ.GOV), give full disclosure of the situation and save any written response. GateWay Community College is not liable for graduates who do not receive an Arizona Instructor License and will not give refunds for tuition and fees. Completion of this program is not a guarantee of employment.

Admission Criteria:

1. Must hold current Arizona Cosmetologist license in good standing.
2. Must have one year of industry work experience.

Program Prerequisites: None

Required Courses (350 Clock Hours):

- + COS250 Instructor In Training Orientation 80
- + COS251 Instructor In Training I 135
- + COS252 Instructor In Training II 135

Clock Curriculum Committee Approval Date: 5-12-2023

[Electrocardiogram \(ECG\) Technician](#) ⓘ

1119N - Certificate of Competency (CCT) - (325 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/electrocardiogram-ecg-technician-1119n-cct>

Description:

The Certificate of Competency in ECG Technician is a 300-hour program that prepares students to perform the daily duties and responsibilities related to cardiac monitoring and telemetry. This program introduces students to keyboarding, electronic patient records, record keeping, patient assessment, basic knowledge of medical terminology, anatomy and physiology of the cardiovascular system, cardiac conduction system, 12-lead ECG acquisition and rhythm interpretation, basic life support and advanced cardiac life support skills, telemetry, holter monitoring, conducting stress tests and artificial pacemaker evaluation.

This program also serves as a stackable credential for students who have completed a Medical Assisting, Phlebotomy, EMT or CNA program and wish to acquire additional skills that may be suited for positions such as a patient monitor technician, ECG/cardiac technician, telemetry technician, and stress test technician.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

The Electrocardiogram (ECG) Technician program tuition and fees includes CPR and ACLS certification through the American Heart Association (AHA), and the Certified ECG Technician (CET) exam by the National Healthcareer Association (NHA).

Admission Criteria:

1. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCCD Background Check Policy.
2. Clinical health and safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCCD Clinical Health and Safety Policy.
3. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.
4. 18 years of age to enroll.

Program Prerequisites: None

Required Courses (325 Clock Hours):

- + ECG100 Introduction to Healthcare; Medical, Legal, Ethics 25
- + ECG101 The Cardiovascular System: Anatomy & Physiology and Pathophysiology of Cardiovascular Disease 30
- + ECG102 Introduction to ECG 40
- + ECG103 Applied ECG: Atrial, Junctional, Ventricular Rhythms and Heart Blocks 50
- + ECG104 Advanced Cardiac Life Support 20
- + ECG105 Advanced ECG: Diagnostic Procedures, Certification Prep and Exam 80
- + ECG106 Clinical Practicum 80

Clock Curriculum Committee Approval Date: 4-14-2023

Emergency Medical Services and Fire Preparatory Academy

1302N - Certificate of Competency (CCT) - (300 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/emergency-medical-services-and-fire-preparatory-academy-1302n-cct>

Description:

The Certificate of Competency (CCT) in Emergency Medical Services and Fire Preparatory Academy prepares students for the Fire Academy. Upon successful completion of the program, students will be eligible to sit for the EMT national certification examination and the Arizona certification examination for Hazardous Materials First Responder Operation which meets the requirements of the Arizona Center for Fire Service Excellence. The program provides an introduction to the fire service, wellness and fitness, emergency medical care, and hazardous materials. Courses included in this program apply to an Associate of Applied Science (AAS) and a Certificate of Completion (CCL) in Fire Science offered by Glendale Community College, Mesa Community College, Phoenix College, and Paradise Valley Community College.

This program prepares students for the Fire Academy. Upon successful completion of the program, students will be eligible to sit for the EMT national certification examination and the Arizona certification examination for Hazardous Materials First Responder Operation which meets the requirements of the Arizona Center for Fire Service Excellence. The program provides an introduction to the fire service, wellness and fitness, emergency medical care, and hazardous materials. Courses included in this program apply to an Associate of Applied Science (AAS) and a Certificate of Completion (CCL) in Fire Science offered by Glendale Community College, Mesa Community College, Phoenix College, and Paradise Valley Community College.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must successfully complete 10 simulated clinical scenarios, the final cognitive exam, and the NREMT Psychomotor Skills Exam in order to complete the program.

This program has a strong physical agility component. Students are required to have gym clothing each day as part of the uniform requirement.

Students who become eligible to take the Hazardous Materials Examination will be able to take the examination during this course. The expense of the examination is the student's responsibility.

Admission Criteria:

1. 17 1/2 years of age to enroll.

Program Prerequisites: None

Required Courses (300 Clock Hours):

+ EMC108 Emergency Medical Services and Fire Preparatory Academy 300

Clock Curriculum Committee Approval Date: 5-12-2021

Emergency Medical Technology (EMT) **1300N - Certificate of Competency (CCT) - (220 Clock Hours)**

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/emergency-medical-technology-emt-1300n-cct>

Description:

The Certificate of Competency (CCT) in Emergency Medical Technology (EMT) program includes techniques of emergency care, stabilization, and immobilization of a victim's illness and injuries. Recognition and documentation of signs and symptoms of illness and injury, intervention, and evaluation of the intervention are integrated into the program. Techniques for assessment, administration of oxygen, use of specific immobilization devices, and preparation for transportation are other areas of the program.

EMT students will be challenged daily in class as they learn the crucial skills needed to perform in emergency medicine. The EMT program will take students with minimal to zero medical knowledge and in 20 weeks have them trained and prepared to assist people in their most critical time of need. EMT's are trained to handle events such as heart attacks, strokes, internal bleeding, diabetic problems, and trauma patients.

The Emergency Medical Technology (EMT) program is the first step towards a career in emergency medical services. The techniques taught in the program are in accordance with the state and national curriculum. Successful completion of this program will make students eligible to sit for the National Registry of EMT's certification examination in order to gain state certification.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must successfully complete 10 simulated clinical scenarios, the final cognitive exam and the NREMT Psychomotor Skills exam in order to complete the program.

EMC101 and EMC104 must be taken as a cohort and are not offered independently.

Admission Criteria:

1. 17 1/2 years of age to enroll.

Program Prerequisites: Admitted to program.

Required Courses (220 Clock Hours):

+ EMC101 CPR/Basic Cardiac Life Support 6

+ EMC104 Basic Emergency Medical Technology 214

Clock Curriculum Committee Approval Date: 12-9-2022

Hair Stylist (32 Hours Per Week)

1191 - Certificate of Competency (CCT) - (1000 Clock Hours)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Toni Peoples

Phone: 602-392-5263

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/hair-stylist-32-hours-week-1191-cct>

Description:

The Certificate of Competency (CCT) in Hair Stylist program will provide students with the skills necessary for establishing and maintaining a clientele. Topics also include knowledge of laws pertaining to hair stylists, as well as skills necessary for starting and managing a salon. As a hair stylist, students will provide beauty services such as shampooing and conditioning, cutting, coloring, perming, and styling hair. Additionally, students will braid, press, curl and relax hair and design hairstyles. All work will be performed safely using proper disinfection and sanitation techniques. Upon completing the Hair Stylist program, students will be prepared to sit for the Arizona State Board of Barbering and Cosmetology hair stylist licensing exam.

Program Notes:

Students must successfully pass each course with a minimum grade of 80% and 100% of the course hours required in order to continue on to the next course. Students may apply for graduation from the Hair Stylist program upon successful completion of their program hours and a score of 80% or higher. Completion of the program does not guarantee a hair stylist license (in any state). The Arizona State Board of Barbering and Cosmetology may deny a student's application if they determine that the student does not meet their other requirements for citizenship and/or high school education requirements.

If students have concerns about their citizenship status and/or high school education requirements, they are strongly encouraged to immediately contact the Arizona State Board of Barbering and Cosmetology via its website: [HTTPS://BOC.AZ.GOV](https://BOC.AZ.GOV), give full disclosure of their situation, and save any written response. GateWay Community College will not give refunds or be held liable for graduates who do not receive an Arizona hair stylist license.

Admission Criteria: None

Program Prerequisites: None

Required Courses (1000 Clock Hours):

COS104 Hair Essentials I 200

+ COS106 Hair Essentials II 200

+ COS114 Student Salon 1 200

+ COS116 Student Salon 2 200

+ COS118 Hairstylist State Licensure Focus 200

Clock Curriculum Committee Approval Date: 5-12-2023

[Hazardous Materials Operations](#)

1305N - Certificate of Competency (CCT) - (40 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/hazardous-materials-operations-1305n-cct>

Description:

The Certificate of Competency (CCT) in Hazardous Materials Operations provides training in basic methods of recognition and identification based upon the chemical and physical properties of hazardous materials; basic safety procedures when utilizing specific types of protective clothing and equipment; basic tactical information relating to scene management. Satisfies minimum standards for certification testing set forth by the current ProBoard and/or Arizona State Training and Certifying Authority.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Admission Criteria:

1. 17 1/2 years of age to enroll.

Program Prerequisites: None

Required Courses (40 Clock Hours):

EMC105 Hazardous Materials Awareness and Operations 40

Clock Curriculum Committee Approval Date: 12-9-2022

[HVAC Residential Installation and Service Technician \(Day\)](#)

1108 - Certificate of Competency (CCT) - (660 Clock Hours)

Field of Interest: **Applied Technology**

For Information: Martin Blesh

Phone: 602-286-8714

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/hvac-residential-installation-and-service-technician-day-1108-cct>

Description:

The Certificate of Competency (CCT) in HVAC Residential Installation and Service Technician is designed to provide entry-level training in the areas of heating, ventilation, air conditioning and

refrigeration (HVAC) systems, electricity, electronic controls and general repair. Students will have the opportunity to learn skills necessary to assess and solve problems quickly. A Certificate of Completion in Commercial Air Conditioning/Refrigeration/Facilities and an AAS in Air Conditioning/Refrigeration/Facilities are also available.

Program Notes:

Students must earn a grade of C or better for all courses within the program.

Admission Criteria: None

Program Prerequisites: None.

Required Courses (660 Clock Hours):

ELR131 Electrical Systems 140
HVC101 HVAC for Residential Systems I 130
HVC102 HVAC for Residential Systems II 130
HVC120 HVAC Installation 130
HVC130 HVAC Troubleshooting 130

Clock Curriculum Committee Approval Date: 11-10-2022

[Massage Therapy \(24 Hours Per Week\)](#) 

1184 - Certificate of Competency (CCT) - (700 Clock Hours)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Jackie Bauer

Phone: 602-238-4374

<https://www.gatewaycc.edu/degrees-certificates/massage-therapy-24-hours-week-1184-cct>

Description:

The Certificate of Competency (CCT) in Massage Therapy program builds strong foundational skills for students, equipping them with the tools necessary to succeed in the massage therapy industry. Massage therapists use the professional art of therapeutic touch to facilitate healing in the body. The Massage Therapy Focus is placed on structural massage - the ability to couple and apply a deep understanding of anatomy with powerful tissue sculpting techniques in order to create radical change in the body. Students learn how to use hands, fingers, forearms, knuckles, fists and elbows when working with the soft tissues of the body. While the program centers heavily on anatomy, Swedish massage, and deep tissue massage, it rounds out students' education with exposure to Asian modalities, sports massage, pregnancy massage and business classes. This program provides the training necessary for success in the massage therapy industry regardless of the setting: private practice, spas, fitness centers, sports teams, hospitals, rehabilitation centers and chiropractic offices.

Program Notes:

Students must successfully pass each course with a minimum grade of 80% and 100% of the course hours required in order to continue on to the next course. Students may apply for graduation from the Massage Therapy program upon successful completion of the program hours and a score of 80% or higher. Completion of the program does not guarantee a massage therapy license (in any state).

Students should visit The Arizona State Board of Massage Therapy website at <https://massagetherapy.az.gov> for more information regarding licensure eligibility and application requirements. GateWay Community College will not give refunds or be held liable for graduates who do not receive an Arizona Massage Therapy License.

Admission Criteria:

High school diploma or GED.

Program Prerequisites: None

Required Courses (700 Clock Hours):

PMP120 Massage Therapy Basics 175
+ PMP121 Massage Therapy Advanced 175
+ PMP220 Massage Therapy Mastery I 175
+ PMP221 Massage Therapy Mastery II 175

Clock Curriculum Committee Approval Date: 4-14-2021

Medical Assisting 

1804 - Certificate of Competency (CCT) - (830 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/medical-assisting-1804-cct>

Description:

The Certificate of Competency (CCT) in Medical Assisting explores how Medical assistants are integral members of the administrative and clinical healthcare team in various healthcare settings. Medical assistants act as liaisons between the healthcare providers and patients, and are of vital importance to the success of the medical practice. The Certificate of Competency (CCT) in Medical Assisting provides education and training for employment as medical assistants. Upon successful completion of the program, students are eligible to take the national certification exam.

Program Notes:

Practicum hours are site specific and may require attendance any day of the week, including during unscheduled days and times.

Students must earn a grade of C or better for all courses required within the program. This program is delivered in a fast-track format and the need for college-level skills in English, Reading, and Math is critical to successful completion of the program.

Admission Criteria:

1. Formal application and admission to the program is required. Students must be at least 18 years of age to apply for admission.
2. Must be a high school graduate or equivalent.

3. Submit current CPR/BLS Provider card (American Heart Association approved) and maintain current status throughout the externship(s).
4. Complete and submit the Allied Health Student Health and Safety Documentation Checklist, with included documentation, signed by a licensed healthcare provider.
5. Background Check Requirements:
Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). Upon conditional program admission, the student must comply with all requirements of the current MCCCDC background check policy.
6. Students must have multiple measures assessment results or course placement test results that qualify students for entry into the following courses OR have completed the following courses with a C or better: English 101/107, CRE101, and MAT095.

Program Prerequisites: Admission to the program.

Required Courses (830 Clock Hours):

MDC103 Introduction to Medical Assisting 156
MDC104 Fundamentals of Administrative Medical Assisting 159
MDC105 Fundamentals of Clinical Medical Assisting I 141
MDC106DC Fundamentals of Clinical Medical Assisting II 174
MDC130 Medical Assisting Practicum 200

Clock Curriculum Committee Approval Date: 3-11-2022

Medical Billing and Coding: Physician Based (Day) 

1850 - Certificate of Competency (CCT) - (804 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/medical-billing-and-coding-physician-based-day-1850-cct>

Description:

The Certificate of Competency (CCT) in Medical Billing and Coding: Physician-Based program is designed to prepare individuals for entry-level medical billing and coding positions in ambulatory care treatment centers such as clinics, physician practices, managed care organizations, private billing services, and insurance companies.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Admission Criteria: None

Program Prerequisites: None.

Required Courses (804 Clock Hours):

- + HLC130 Fundamentals in Health Care Delivery 30
- + HLC145 Medical Terminology for Health Care Professionals 102
- + HMC200 Human Pathophysiology and Pharmacology for HMC 180
- + HMC180 Introduction to Medical Billing and Reimbursement 48
- + HMC181 Medical Claims Processing 54
- + HMC208 ICD-CM Diagnostic Coding 90
- + HMC213 CPT and HCPCS Coding 216
- + HMC100 Medical Billing and Coding Examination Review 48
- + HMC105 Computers in Healthcare and Health Record Systems 36

Clock Curriculum Committee Approval Date: 3-10-2023

Nail Technician

1123 - Certificate of Competency (CCT) - (600 Clock Hours)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Robin Diehl

Phone: 602-392-5246

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/nail-technician-1123-cct>

Description:

The Certificate of Competency (CCT) in Nail Technician prepares individuals to understand and apply techniques needed to successfully complete competencies in accordance with the Arizona State Board of Barbering and Cosmetology as a nail technician, under the supervision of a licensed instructor. Students will learn proper steps in safety, sanitation, shaping of the fingernails and toenails with various nail files, remove unwanted cuticle skin, calluses, product application and use, massage, nail sculpture, nail enhancements, design art, customer service skills, laws and regulations, marketing, and business practices.

Program Notes:

Students must successfully pass each course with a minimum grade of 80% and 100% of the course hours required in order to continue on to the next course. Students may apply for graduation from the Nail Technician program upon successful completion of the program hours and a score of 80% or higher. Completion of the program does not guarantee a nail technician license (in any state). The Arizona State Board of Barbering and Cosmetology may deny an application if it's determined that the student does not meet citizenship and/or high school education requirements if under the age of 18. If students have concerns about their citizenship status and/or high school education requirements, they are strongly encouraged to immediately contact the Arizona State Board of Barbering and Cosmetology via its website: [HTTPS://BOC.AZ.GOV](https://BOC.AZ.GOV), give full disclosure of their situation, and save any written response. GateWay Community College will not give refunds or be held liable for graduates who do not receive an Arizona nail technician license.

Admission Criteria: None

Program Prerequisites: None

Required Courses (600 Clock Hours):

NLT100 Nail Technology I 200
+ NLT105 Nail Technology II 200
+ NLT110 Nail Technology III 200

Clock Curriculum Committee Approval Date: 5-12-2023

Nail Technician Instructor 

1137N - Certificate of Competency (CCT) - (350 Clock Hours)

Field of Interest: **Business, Entrepreneurialism, and Management**

For Information: Jennifer Swan

Phone: 602-392-5250

<https://www.gatewaycc.edu/degrees-certificates/business-entrepreneurialism-and-management/nail-technician-instructor-1137n-cct>

Description:

The Certificate of Competency (CCT) in Nail Technician Instructor will prepare students to provide instruction for Nail Technician program students. Additionally, students will learn how to write and deliver a successful lesson plan, and will graduate from the program with the skills necessary for establishing and maintaining an effective classroom. Topics also include knowledge of laws pertaining to the Arizona State Board of Cosmetology, safety and sanitation, and state board regulations. Upon completing the Nail Technician Instructor program, students will be prepared to take the Arizona State Board of Barbering and Cosmetology's Instructor Licensing Exam.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Students must complete all required competencies and clock hours as well as receive a score of 80% or higher in the Cosmetology Instructor Program in order to be eligible to apply for a certificate of competency. However, a certificate of competency does not guarantee graduates are an instructor in any state. Students must pass the Arizona state board licensing exam in order to teach in Arizona. The Arizona State Board of Barbering and Cosmetology can deny an application should it be determined that a candidate does not meet the requirements for citizenship and/or high school education requirements. If students have any concerns about meeting these requirements, students are strongly encouraged to contact the Arizona State Board of Barbering and Cosmetology directly via its website: <https://boc.az.gov>, give full disclosure of the situation, and save any written response. GateWay Community College is not liable for graduates who do not receive an Arizona instructor license and will not give refunds for tuition and fees. Completion of this program is not a guarantee of employment.

Admission Criteria:

1. Must hold current Arizona Cosmetologist or Nail Technician license in good standing.
2. Must have one year of industry work experience.

Program Prerequisites: None.

Required Courses (350 Clock Hours):

+ COS250 Instructor In Training Orientation 80

+ COS251 Instructor In Training I 135

+ COS252 Instructor In Training II 135

Clock Curriculum Committee Approval Date: 5-12-2023

Ophthalmic Medical Assistant

1501 - Certificate of Competency (CCT) - (606 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/ophthalmic-medical-assistant-1501-cct>

Description:

The Certificate of Competency (CCT) for Ophthalmic Medical Assistant will serve as the initial education program for learning and understanding the core level of care for entry into the fascinating world of eye care in a clinical/office setting. The program will focus on learning how to assist and work with ophthalmologists. Included will be an overview of patient services and even assisting with minor surgical procedures, instrument care and maintenance. Special attention will be given to complete comprehensive eye examinations, including chief complaints and history taking, anatomy and physiology of the visual system, eye terminology, general medical knowledge as well as hands-on skill instruction.

Program Notes:

Students will be required to take a randomized urine drug screen and submit a negative result prior to being eligible to participate in the clinical externship. The expense of the urine drug screen is the student's responsibility.

Externship hours are site specific and may require attendance any day of the week, including during unscheduled days and times.

The Ophthalmic Medical Assistant program serves as a pathway to excellent job opportunities and a lifelong and challenging career with the future opportunity of becoming a Certified Ophthalmic Assistant (COA).

Admission Criteria:

1. Background check requirements:

Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCD Background Check Policy.

2. Clinical health and safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCD Clinical Health and Safety Policy.

3. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.
4. 18 years of age to enroll.

Program Prerequisites: Admission to the program.

Required Courses (628 Clock Hours):

- + HLC130 Fundamentals in Health Care Delivery 30
- + OPH101 Introduction to Eye Care 54
- + OPH110 Medical Terminology/Abbreviations and Disease Processes for Ophthalmic Medical Assistant 42
- + OPH112 Clinical Theory and Skills 177
- + OPH114 Basic Skills and Ocular Assessment 183
- + OPH190 Ophthalmic Assisting Externship 120

Clock Curriculum Committee Approval Date: 5-12-2023

Pharmacy Technician

1405 - Certificate of Competency (CCT) - (622 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/pharmacy-technician-1405-cct>

Description:

The Certificate of Competency (CCT) in Pharmacy Technician program meets Pharmacy Technician Certification Board requirements for students to sit for the Pharmacy Technician Certification Exam. Students will learn interpersonal skills and regulatory standards required of pharmacy technicians. Includes roles and responsibilities of the technician in a variety of entry-level pharmacy operations, responses to regulatory issues, adherence to quality assurance procedures, patient and medication-safety procedures, the procedures for handling of medications and filling medication orders, procurement, billing, reimbursement, and inventory management procedures, and use of pharmacy technology and informatics database software. Students must complete 200 hours of in-person externship in order to complete this program.

Program Notes:

Students are required to apply and receive their temporary pharmacy technician trainee license through the Arizona State Board of Pharmacy during the first few weeks of class in order to attend job shadowing and clinical externship. This program has a 200-hour clinical externship requirement with a scheduled meeting pattern that varies from the class schedule. Clinical externship is off campus at an industry partner (hospital or retail pharmacy). Students are responsible for their own travel. Clinical externship is unpaid. Students must complete all 200 hours of clinical externship and pass each course with a grade of 75% or greater to pass the program.

Admission Criteria:

1. 18 years of age to enroll.
2. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
3. Clinical health and safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy.
4. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.

Program Prerequisites: Program admission.**Required Courses (622 Clock Hours):**

- + PHC101 Pharmacology for Pharmacy Technicians 60
- + PHC102 Pharmacy Tech I 120
- + PHC102AB Pharmacy Tech II 128
- + PHC107 Math and Dosages 90
- + PHC122 Pharmacy Tech Certification Review 24
- + PHC114 Pharmacy Tech Externship 200

Clock Curriculum Committee Approval Date: 5-12-2023**Phlebotomy Practicum** ⓘ**1408N - Certificate of Competency (CCT) - (120 Clock Hours)**

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/phlebotomy-practicum-1408n-cct>

Description:

The Certificate of Competency in Phlebotomy Practicum provides an opportunity for students to apply fundamental Phlebotomy and specimen processing skills in a clinical laboratory or healthcare environment, learn advanced procedures in a real-work setting, and connect students to employment opportunities.

Admission Criteria:

1. Background check requirements: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Background Check Standards. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Background Check Policy.
2. Clinical health and safety requirements must be met. Upon conditional program enrollment, the student must comply with all requirements of the MCCCDC Clinical Health and Safety Policy.
3. Inability to comply with background check requirements and/or clinical health and safety requirements at the start of classes may result in cancellation of enrollment.

4. 18 years of age to enroll.


Program Prerequisites:

PLC111 or PLB111 with grade C or better, or program manager's approval.

Required Courses (120 Clock Hours):

+ PHC122 Phlebotomy Practicum 120

Clock Curriculum Committee Approval Date: 5-12-2023

[Welding: Fundamentals \(20 Hours Per Week\)](#) 

1111 - Certificate of Competency (CCT) - (720 Clock Hours)

Field of Interest: **Applied Technology**

For Information: Alan (Al) Gaiser

Phone: 602-238-2374

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/welding-fundamentals-20-hours-week-1111-cct>

Description:

The Certificate of Competency (CCT) in Welding: Fundamentals prepares students to work in industry using oxy-fuel welding and cutting (OFW) (OFC) and shielded metal arc welding (SMAW) processes. This certificate provides an introduction to the knowledge and skills required to work with modern industrial welding equipment using advanced welding techniques including gas metal arc welding (GMAW), flux core arc welding (FCAW) and gas tungsten arc welding (GTAW). An AAS in Welding as well as certificates in the following areas of specialization are also available: Welding: Gas Metal/Flux Cored Arc Welding (GMAW)/(FCAW), Welding: Gas Tungsten Arc Welding (GTAW) Ferrous, Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous, Welding: Shielded Metal Arc Welding (SMAW) Plate, and Welding: Shielded Metal Arc Welding (SMAW) Pipe.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Admission Criteria: None

Program Prerequisites: None

Required Courses (720 Clock Hours):

WTO106AA Introduction to SMAW 180

WTO206DA Introduction to GMAW/FCAW and GTAW 180

WTO206DB Advanced GMAW/FCAW 180

WTO208DB GMAW Code Welding 180

Clock Curriculum Committee Approval Date: 11-10-2022

[Welding: Gas Tungsten Arc Welding \(GTAW\) Ferrous and Non-Ferrous \(20](#)

Hours Per Week ⓘ

1117 - Certificate of Competency (CCT) - (720 Clock Hours)

Field of Interest: **Applied Technology**

For Information: Alan (Al) Gaiser

Phone: 602-238-2374

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/welding-gas-tungsten-arc-welding-gtaw-ferrous-and-non-ferrous-20-hours-week-1117-cct>

Description:

The Certificate of Competency (CCT) in Welding: Gas Tungsten Arc Welding (GTAW) prepares students for aerospace industry code certification testing in the gas tungsten arc welding process in carbon steel and stainless-steel (ferrous metals) and aluminum (non-ferrous). An AAS in Welding as well as certificates in the following areas of specialization are also available: Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW), Welding: Shielded Metal Arc welding (SMAW) Plate, Welding: Shielded Metal Arc Welding (SMAW) Pipe, and Welding: Shielded Metal Arc welding (SMAW) Plate and Pipe.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Admission Criteria: None

Program Prerequisites: None

Required Courses (720 Clock Hours):

WTO206DA Introduction to GMAW/FCAW and GTAW 180

WTO206AC Advanced GTAW Non-Ferrous 180

WTO206AD Advanced GTAW Ferrous 180

WTO208AE GTAW Code Welding 180

Clock Curriculum Committee Approval Date: 11-10-2022

Welding: Shielded Metal Arc Welding (SMAW) Pipe (20 Hours Per Week) ⓘ

1131 - Certificate of Competency (CCT) - (720 Clock Hours)

Field of Interest: **Applied Technology**

For Information: Alan (Al) Gaiser

Phone: 602-238-2374

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/welding-shielded-metal-arc-welding-smaw-pipe-20-hours-week-1131-cct>

Description:

The Certificate of Competency (CCT) in Shielded Metal Arc Welding (SMAW) Plate & Pipe prepares students to complete industry certification on carbon steel plate and pipe. An AAS in Welding as well as certificates in the following areas of specialization are also available: Welding: Gas Metal / Flux Cored

Arc Welding (GMAW)/(FCAW), Welding: Gas Tungsten Arc Welding (GTAW) Ferrous, Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous.

Program Notes:

Students must earn a grade of C or better for all courses required within the program.

Admission Criteria: None

Program Prerequisites: None

Required Courses (720 Clock Hours):

WTO106AA Introduction to SMAW 180

WTO106AB SMAW 6010 Plate 180

WTO106AD SMAW Introduction to Pipe 180

WTO208AD SMAW Code Welding Pipe 180

Clock Curriculum Committee Approval Date: 11-10-2022

Wildland Firefighter 

1310N - Certificate of Competency (CCT) - (50 Clock Hours)

Field of Interest: **Health Sciences**

For Information: Jennifer Kline

Phone: 602-392-5381

<https://www.gatewaycc.edu/degrees-certificates/health-sciences/wildland-firefighter-1310n-cct>

Description:

The Certificate of Competency in Wildland Firefighter trains students for beginning-level wildland firefighter and meets the standards for National Wildfire Coordinating Group (NWCG). Includes wildland fire behavior, fire control tactics, human factors on the fireline, standards for firefighter safety and survival, introduction to the incident command system, and a field exercise.

Program Notes:

This program is not eligible for Title IV Federal Financial Aid.

Admission Criteria:

1. 17 1/2 years of age to enroll.

Program Prerequisites: None

Required Courses (50 Clock Hours):

EMC110 Wildland Firefighter 50

Clock Curriculum Committee Approval Date: 12-9-2022

Maricopa Community College District

Administration

Dr. Steven Gonzales - Chancellor

Bettina Celis - Acting Vice Chancellor and Provost of Academic and Student Affairs

Chuck Coolidge - Executive Vice President of Marketing and Communications

Janice Falkenberg, Esq. - General Counsel

Kimberly Brainard Granio - Vice Chancellor of Business Services

Matt Hasson - Chief Communication Officer

Dr. Cathleen Hernandez - Interim Chief of Staff

Dr. Georgetta Kelly - Vice Chancellor and Chief Human Resources Officer

Matthew Reeves - Interim Chief Information Officer

Darcy Renfro - Vice Chancellor of Community, Government Relations, and Economic Development

Dr. Alka Arora Singh - Associate Vice Chancellor, Enterprise Performance

Brian Spicker - Foundation President and Chief Executive Officer

Deanna Villanueva-Saucedo - Associate Vice Chancellor of the Center for Excellence in Inclusive Democracy

Governing Board

Marie Sullivan - President - District 3

Susan Bitter Smith - Secretary - District 2

Jacqueline Smith, J.D. - District 1

Donna Davis - District 4

Tom Nerini, Ed.D. - District 5

Kelli Butler - At-large

Linda Thor, Ed.D. - At-large

Lynn Burnett - Student

College Presidents

Dr. Amy Diaz - GateWay Community College

Dr. Kimberly Britt - Phoenix College

Dr. Tiffany Hunter - Paradise Valley Community College

Dr. Eric Leshinskie - Scottsdale Community College

Dr. Tiffany Hernandez - Glendale Community College

Dr. Richard Daniel - South Mountain Community College

Dr. Greg Peterson - Chandler-Gilbert Community College

Dr. Rey Rivera - Estrella Mountain Community College

Dr. Tammy Robinson - Mesa Community College

Dr. Kate Smith - Rio Salado Community College

GateWay Administration

Diaz, Amy - President; BSEd, in Secondary Math Education, University of Iowa; M.Ed. in Counseling for Student Development in Higher Education, Northern Illinois University, Ed.D., Educational Psychology, Northern Illinois University

Aiello, Ryan - Dean of Student Engagement & Retention; B.S. in Psychology, Washington State University; M.A. in Counseling Psychology, Pacific University; Ph.D. in Education & Leadership, Pacific University

Brown, Terese - Dean of Student Affairs; B.A. in English, Morgan State University; J.D., University of Maryland School of Law

Fisher, Daniel - Dean of Business Professions, Technology, and Trades; B.A. in Business Administration, M.A. in Secondary Education and Teaching, Westminster College; M.A. in Educational Leadership and Policy, University of Utah

Greene, Kelly - Dean of Liberal Arts and Learning Support; B.A. in Mass Communication/Media Studies, M.S.Ed. in Secondary Education and Teaching, University of South Florida; Ed.D. in Innovation and Leadership, Arizona State University

Gubser, Kristin - Associate Vice President of Workforce Strategies and External Affairs; B.A. in Communication, University of New Mexico; M.P.A., Arizona State University

Levin-Stankevich, Brian - Interim Vice President of Academic Affairs; M.A., Ph.D. in History, State University of New York at Buffalo; A.A.C.S.B. in Management and Marketing, University of Florida

Moore, James - Vice President of Administrative Services; BSPM, Arizona State University; MAEA, Northern Arizona University; Ed.D., Northern Arizona University

Timmons, Lora - Dean of Nursing and Healthcare; B.S. in Exercise Science, Iowa State University; M.A. in Public Health, Northern Illinois University; Doctorate of Health Professions Education (DHPE), Health/Health Care Administration/Management, Logan University

Wilson, Delfina - Vice President of Student Affairs; B.S.I.S. in Multi/Interdisciplinary Studies, M.A.T. in Educational Psychology, Ph.D. in Higher Education Administration, Community College Education, Mississippi State University

GateWay Faculty

Alexander, Suzanne - Program Director, Interim Practical Nursing; B.S.N. in Nursing, Brigham Young University; M.S.N.Ed. in Nursing with an Emphasis in Nursing Education, University of Phoenix

Austin, Steve - B.S., M.A. in Psychology, Arizona State University

Black Beltran, Janelle - A.A.S. in Medical Radiography, GateWay Community College; B.S. (DMIT), Northern Arizona University; R.T. (R), American Registry of Radiologic Technologists

Bolin, Julie - Program Director, Nuclear Medicine Technology; B.S. in Biology, Missouri University of Science and Technology; M.S. in Biology, St. Joseph's University; N.M.T. Certificate of Completion, Research Medical Center, C.N.M.T., Nuclear Medicine Technology Certification Board

Buensuceso, Monica - B.A. in Counseling, Montclair State University; M.A., Kean University

Cejka, Timothy - D.C. in Biology, Palmer University

Chamberlain, Kimberly - B.A. in English, Northern Arizona University; M.T.E.S.L., Arizona State University

Chang, Tsuhen - Program Director; B.A. in Chemistry, University of California, Berkeley; Ph.D., University of Arizona

Chirravuri, Saroj - B.S. in Biology, Microbiology, Delhi University; M.S. in Biotechnology, Jawaharlal Nehru University; M.S. in Microbiology, Arizona State University; Ed.D. in Higher Education, Grand Canyon University

Coleman, Tara - B.S. in Chemistry, Ohio University; M.S., University of Akron

Cooper, Jason - Program Director; B.S. in Automotive Technology, Northern Arizona University; Masters Certification, Automotive Service Excellence

Crimando, James - B.S. in Biology, Ph.D., Arizona State University

Cummings, Ellen - Program Director; A.A.S. in Concurrent Enrollment Program/Nursing, Scottsdale Community College; B.S.N., M.S.N., University of Phoenix

Dew, Michelle - B.A. in Human Communication, Arizona State University; B.A. in Film and Media Studies, Arizona State University; M.A. in Communication Studies, Arizona State University

Diaz, Roman - Program Director, Environmental Science and Water Resources Technology; B.S., University of Arizona; M.B.A., University of Phoenix

Dodd, Bryan - Program Director, Diagnostic Medical Sonography; A.A.S., George Washington University; B.S.E., Arizona State University; M.Ed., Northern Arizona University

Doss, Dominique - B.A. in Counseling, University of Portland; M.A., Loyola University Chicago; Psy.D., Argosy University, Phoenix

Dunphy, Elizabeth - B.S. in Biology, University of Vermont; D.V.M., University of Minnesota; DACVECC., University of Missouri-Columbia

Escobar, Elisabeth - A.A.S. in Nursing, Rio Salado Community College; B.S.N., M.S., M.Ed., Grand Canyon University

Daniella Fallon - A.D.N., Laboure College; B.S.N., Southern New Hampshire University; M.S.N. in Nursing with an Emphasis in Education, Grand Canyon University

Fiala, Carol - A.D.N. in Nursing, College of DuPage; B.S.N., Lewis University; M.S.N., Olivet Nazarene University

Finch, Alyssa - B.S. in Mathematics, Ferris State University; M.A., Central Michigan University

John Fletcher - B.A. in Business Administration, Iowa Wesleyan College; M.A. in Economics, Western Illinois University; M.B.A. in Finance, Arizona State University

Foltz-Sweat, Jennifer - B.S. in Biology, University of Arizona; M.S., University of Massachusetts, Boston; Ph.D., University of California, Berkeley

Fox, Renee - B.S.N. in Nursing, Grandview College; M.A., University of Iowa; M.S.N., Grand Canyon University

Gaberdriel, J.W. - B.S. in Mathematics, B.A. in Communication, University of Arizona; M.A. in Education, Arizona State University; M.S. in Mathematics, Emporia State University

Garneau, Ashley - A.A.S. in Nursing, GateWay Community College; B.A., Arizona State University; M.S., Northern Arizona University; Ph.D., Capella University

Gill, Baljeet - M.B.B.S., Dayanand Medical College

Goodrich, Gregory - B.A. in Philosophy and Humanities, B.A. in History, Northern Arizona University; M.A. in Philosophy, Arizona State University

Greene, Kelly - B.A., M.A., University of South Florida; Ed.D, Arizona State University

Hammerschmidt, Soren - B.A., M.A. in English, University of Edinburgh; Ph.D., University of California, Santa Barbara

Hanley, Sarah - M.S.P.C. in Counseling, Grand Canyon University

Hatfield, Tabatha - Program Director, Health Science Continuing Education and Post-Primary Health Care; A.A.S., B.S. in Diagnostic Medical Imaging, Fort Hays State University; M.A. in Leadership, Bellevue University; Diagnostic Medical Sonography Certificate M.A., R.T.(R), R.D.M.S., R.V.T.

Hightower, Nicolle - A.A.S. in Medical Radiography, GateWay Community College; B.A.S.-D.M.I.T., M.Ed., Northern Arizona University

Hunter, Ferdinand - B.A. in English, Emory University; M.F.A., Brown University; M.L.S., Arizona State University

Hutchins, Heidi - B.A. in Business, University of Utah; M.H.S.A., M.B.A., Arizona State University

Jahnke, Lisa - B.S.N., Northern Arizona University

Jahnke, Megan - A.A.S. in Nursing Continuing Education, GateWay Community College; B.S.N., Arizona State University

Jha, Sanjiv - B.Sc., M.Sc. in Physics, Tribhuvan University; M.S., Ph.D. in Physics, New Mexico University

Johnson, Brad - Program Director, Medical Radiography; A.S., Rochester Community and Technical College; B.S., University of St. Francis; M.Ed., Northern Arizona University

Johnson, Wyatt - Program Director, Cisco Network Technology and Computer Information Systems; B.S., Grand Canyon University; M.Ed., Arizona State University

Jolly, Matthew - B.A. in English, Lycoming College; M.F.A., Arizona State University

Kawasaki, Emi - B.A. in Library, Tsuda College; M.Ed., Northern Arizona University; M.L.S., M.A., University of Arizona

Kelly, John - B.A.E. in Industrial Technology/Automotive, Arizona State University; M.Tech., Arizona State University

Knudsen, Tiffany - A.A.S. in Nursing, GateWay Community College; B.S.N., Grand Canyon University; R.N., M.S.N.Ed., Western Governors University

Komlodi, Candace - B.S., Indiana University; M.Ed., University of Pittsburgh; Ed.D., Northern Arizona University

Lastine, Jeri - Assistant Director; B.S.N. in Nursing, Winona State University; M.S.N., University of Phoenix

Leaf, Julia - B.S.N. in Nursing, M.S.N.Ed, Arizona State University

Lenartz, Andrew - M.S. in Psychology, University of Wisconsin-Stout; Ed.D., Northern Arizona University

Malapanes, Elizabeth - Department Chair, Library; B.A., M.L.S., University of Arizona

Martz, Larry Bruce - Program Director, HVAC; B.B.A., Georgia State University; M.B.A., University of Phoenix

McKee, Sharon - A.A.S. in Nursing, Phoenix College; B.S.N., M.S.N., Ph.D., University of Phoenix

Melenovich, Peter - A.A.S. in Nursing, GateWay Community College; B.S.N., M.S., Arizona State University; Ph.D., Capella University

Mendoza-Moreno, Patricia - B.S.N. in Nursing, Arizona State University; M.S.N., University of Phoenix

Miller, Joseph - A.S. in Respiratory Care, Biosystems Institute; B.S., M.S.N., Ottawa University; M.Ed., Ottawa University

Miller, Kathy - B.S.N., M.S.N. in Nursing, University of Phoenix

Mills, Susan - Program Director; B.F.A. in Fine Arts/Studio Arts, University of Illinois, Urbana Champaign; M.F.A., Southern Illinois University

Mims, Christopher - B.A., M.A. in Communication, Arizona State University; M.Ed., Northern Arizona University

Moneda, Manolo - B.S.N. in Nursing, Arizona State University; M.B.A., Keller Graduate School of Management, DeVry University

Murphy, Maureen - A.A.S., GateWay Community College; C.S.T.

Nolan, Lily - B.S.N. in Nursing, University of Arizona

Ornelas, Linda - B.S.N. in Nursing, University of North Dakota; M.S., Arizona State University

Pardazi, Ahmad - B.S. in Biochemistry, University of Washington; M.H.S.M., Graduate Certificate in Engineering, Arizona State University

Permoda, Linda - B.S.N. in Nursing, D'Youville College; M.S.N. in Nursing, University of Phoenix

Peterson, Jeanette - Program Director, Nursing Continuing Education; A.S., Mesa Community College; B.S., University of Hawaii at Manoa; M.S.N.Ed., University of Phoenix

Pomeranz, Marla - Program Director, Occupational Therapy Assisting; B.A. in Education, University of South Florida; Master and Doctorate in Occupational Therapy, A.T. Still University; M.Ed., Northern Arizona University; Master in Elementary Education; Endorsements in Special Education and Middle Level Education; OTO, OTR/L

Romero, Michele - A.A.S., GateWay Community College; B.A., Truman State University; M.Ed., Northern Arizona University; CST, CRCST, CIS

Rozell, Marie - Clinical Nursing Coordinator; A.S., Loma Linda University; B.S., Regents College of the University of New York; M.C.C., Christian International University; M.S.N., Grand Canyon University

Ruth, Shannon - Program Director; B.S. in Math, Gonzaga University; M.A., Northern Arizona University

Safa, Laura - Division Chair, Allied Health; A.A.S. in Physical Therapist Assisting, GateWay Community College; B.A. in Healthcare Management, Ottawa University; M.S. in Positive Psychology/Coaching, Life University

Schartz, Tracey - Director of Clinical Education, Respiratory; B.S., M.Ed. in Educational Leadership, Northern Arizona University; RRT, VA-BC

Swaba, Joseph - B.A. in Communication, Metropolitan State University; M.A.Ed., University of Phoenix; M.A., Ed.D., Northern Arizona University

Terveen, Danielle - A.S. in Sonography; North Memorial School of X-Ray Technique; B.S. in Health Arts, University of St. Francis; M.B.A. in Healthcare Administration, College of St. Scholastica; Certificate in Radiology

Thimsen, Tyler - A.S. in Nuclear Medicine Technology; Nuclear Medicine Certificate, University of Findlay; B.S. in Diagnostic Medical Imaging & Therapy, Northern Arizona University; M.S. in Healthcare, Grand Canyon University; D.H.Ed, A.T. Still University

Thompson, Brandy - Program Director/Clinical Coordinator, Surgical Services (Surgical Technology, Hospital Central Service & Operating Room Nursing); A.A.S., GateWay Community College; B.S.N., Arizona State University; M.Ed., Northern Arizona University; R.N., CST, CNOR

Torrey-Banks, Annette - Division Chair, Business & Information Technologies; Program Director, Accounting and Business; B.A., Capital University; M.Ed., University of Dayton

Urbanski, Craig - Division Chair, Industrial Technology; B.S., M.S. in Water Resource Technology, University of Central Missouri; Ph.D., Capella University

Vingochea, Danny - B.S. in Mathematics, M.Ed., Arizona State University

Walker, Douglas - Division Chair, Math and Sciences; B.A. in Mathematics, Saint Olaf College; M.S., Iowa State University

Washington, James - A.A.S. in Physical Therapist Assisting, Pima Medical Institute; B.S. in Advanced Patient Care, Grand Canyon University

Watson, Jennifer - B.A. in Elementary Education; B.S.N., Northern Arizona University; M.S.N., Northern Arizona University; M.Ed. in Educational Administration and Supervision

Wenzel, Darren - A.S. in Individual Studies, B.S. in Nuclear Medicine Technology, University of Findlay

Wiesner, Angelita - A.A.S. in Occupational Therapy Assisting, Pima Medical Institute; B.A., Arizona State University

Wildey, Herbert - B.S., M.S. in Biology, Northern Arizona University

Wilding, Gina - B.S.N., M.S.N., D.N.P., P.M.C., Frontier Nursing University

Wilt, Michelle - B.S. in Biology, Minnesota State University, Mankato; M.H.A. in Health Administration, University of Phoenix; RT (R)(M)

Wixom, Tina - M.B.A. in Business, Baker Center for Graduate Studies; D.B.A., California Southern University

Woods, Kristen - Program Director, Nursing Assistant; B.S.N., Methodist College of Nursing; M.N., University of Phoenix

Yena, Lauren - Division Chair, Literacy, Language and Literature; B.A. in English, University of Miami; M.A., University of Florida; Ph.D., Arizona State University

Zamora, David - Program Director, Manufacturing Production and Design Technology; A.A.S., Albuquerque Technical Vocational Institute; A.A.S., Mesa Community College; B.S., M.S. in Manufacturing Engineering, Arizona State University

Zygowicz, Sharon - B.A., M.C., Ph.D. in Counseling, Arizona State University

GateWay Faculty Emeritus

Backus, Alex S. (1972-2005) - Medical Radiography B.S., Alderson-Broaddus College; M.S., State University of New York at Buffalo

Bienert, Martha (1999-2019) - Communication/Sociology A.A., San Joaquin Delta Community College B.A., Sonoma State University M.A., Sacramento State University Ph.D., Arizona State University

Borze, Ilene (1994-2018) - Nursing Continuing Education B.S.N., M.S., Arizona State University

Carrillo, Mary (2003-2017) - Medical Radiography A.A., DeAnza College; A.S., Foothill College; B.S., M.B.A., University of Phoenix

Counts, Willie R. (1978-2008) - Psychology B.S., University of Arizona; Ph.D., Arizona State University

Fenske, Marie A. (1986-2009) - Respiratory Care A.A.S., Kirkwood Community College; B.S., M.S., Ed.D., Arizona State University

Garcia, Yvette - B.A., M.Ed., Arizona State University

Hall, Donald (1996-2020) - GateWay to the Arts Coordinator

Hoskins, Edward (1995-2017) - Respiratory Care/Health Sciences A.A., Maricopa Technical Community College; B.A., Ottawa University; M.Ed., Northern Arizona University

Huffman, Vincent (1981-2016) - Anthropology/Social Work M.A., Ball State University

Lampignano, John (1982-2016) - Teaching and Learning A.A., GateWay Community College; B.S., Weber State College; M.Ed, Arizona State University

Lucius, Catherine (1982-2008) - Nursing B.S.N., M.S., Arizona State University

Perry, Clyde (1990-2012) - HVAC/Facilities B.S., University of Southern Maine; M.Ed., Ed.D., Northern Arizona University

Rasmussen, Geraldine A. (1980-2008) - Liberal Arts A.A., GateWay Community College; B.A., M.Ed., Arizona State University

Rodriguez, Toni (1982-2018) - Respiratory Care A.S., Allegheny Community College; B.S., University of Pittsburgh; M.Ed., Ed.D., Arizona State University; FAARC, Fellow American Association/Respiratory Care

Shay, Gail (1987-2008) - Spanish/ESL/Communication B.A., College of Wooster; M.A., Arizona State University

Stover, Dean (1996-2016) - English B.A., M.F.A., Arizona State University

Thiessen, Charlene (1997-2017) - Medical Transcription/Health Sciences M.Ed., Northern Arizona University

Vrabel, Kerry S (2001-2017) - English, ESOL B.S., Benedictine University, Illinois; M.A., Hunter College of the City University of New York

GateWay Trade & Technology Training / Clock-Hour Instructors

Bauer, Jackie - Licensed Massage Therapist

Barnes, Heather - COA, OSC, A.A. in General Studies, Coconino Community College -

Berberian, Janeen - B.S. in Environmental Science - Biology, Northern Arizona University; Doctorate of Chiropractic, Life Chiropractic College West

Bismuth, Leia - Certified EMS Instructor; NREMT; AZDHS Certified Emergency Advanced EMT; AHA Instructor for BLS for Healthcare Providers; B.S. in Professional Studies, West Chester University of Pennsylvania

Blackman, Aimee - Licensed Cosmetology Instructor; A.A.S. in Beauty and Wellness, GateWay Community College

Blesh, Martin - Diploma in Air Conditioning Services, RSI; Certificate in Electrical Technologies, Mechanical Principles, RSI; Trane Certified HACI Mechanical Contractor; Certified Master Heat Pump Technician

Bowman, Angelica - NCMA: C.C.L. in X-Ray Technician/Medical Assistant, Modern Technology School; C.C.L., in Medical Assistant, Downey Adult School

Brusuelas, Miguel - Licensed Cosmetology Instructor, A.A.S. in Beauty & Wellness, GateWay Community College

Castillo, Kia - C.P.C.; A.A.S. in Organizational Management, Rio Salado Community College; B.S.Ed. in Career & Technical Education (CTE), Northern Arizona University

Cazares, Monica - R.M.A.; R.P.T., Bryman College; NCPT; NCMA; B.S.Ed., in CTE Northern Arizona University

Cooper, Brent - ICAR Structural Gold; AZDoE Teaching Certificate - CTE, K-12; A.A. in LPN, Phoenix College

Davis, Daniel - NREMT Paramedic; AZDHS Certified Emergency Paramedic; AZDHS EMS Training Program Director, NREMT EMT Training Program Director, AHA Instructor, BLS; NAEMSE Instructor I; Firefighter 1 & 2; ACLS; PALS; NRP

Diehl, Robin - Licensed Cosmetology Instructor

Discua, Jessica - NREMT; NRP

Escoto, Kelly - Certified Electrocardiogram Technician; CCT with Cardiovascular Credentialing International; A.A. in General Studies, Glendale Community College; Medical Assisting Certification, Sanford Brown College

Gaiser, Alan - O.S.H.A. Trainer; N.C.C.E.R.

Gould, Tricia - Licensed Aesthetics Instructor

Hayes, Timeka - Licensed Cosmetology Instructor

Hernandez, James (Jay) - C.C.T. in Meat Cutting Apprentice, Maricopa Skill Center

Hernandez, Michael - P.P.G. - Waterborne; P.P.G. - Solvent

Hutchison, Lisa - Medical Assisting Certification, M.Ed. in Secondary Education, Northern Arizona University

Kline, Jennifer - NREMT, CCEMTP, NAEMSE Instructor I & II, AHA Training Faculty BLS, ACLS, PALS, A.A. in General Studies, Glendale Community College; A.A.S. in Emergency Response and Operations, Glendale Community College; B.S.Ed. in CTE, Northern Arizona University; M.Ed. in CTE, Northern Arizona University

Longoria, Erika - Certified Medical Assistant, International Institute of Americas; R.M.A., American Medical Technologists, BLS instructor

Little, Kelly - Licensed Cosmetology Instructor; A.A.S. in Beauty & Wellness, GateWay Community College

Majcher, Teri - Licensed Aesthetics Instructor; Licensed Massage Therapist

Miller, Sharon - CPhT

Moreno, Alejandra - Certified Phlebotomy Technician

Moreno, Paul - AWS Certified Welder, AWS Section Officer

Navarro, Oscar - A.A.S. in Fire Science, Estrella Mountain Community College, AZEMT, Firefighter I & II, Hazmat Operations, Fire Instructor I, Wildland Firefighter Instructor

Peoples, Toni - Licensed Cosmetology Instructor

Rios, Courtney - B.S. in Health Sciences, Arizona State University, AZEMT, AHA BLS Instructor, ASHI BLS Instructor

Rodriguez, Maria (Mary) - Licensed Cosmetology Instructor

Smith, James (Jimbo) - NIMS Machining Level 1

Swan, Jennifer - Licensed Cosmetology Instructor; Licensed Aesthetics Instructor

Tapscott, Michael - Licensed Massage Therapist

Valdivia, Vivian - A.O.S., The Bryman School; R.M.A., American Medical Technologists; CM.A. American Association of Medical Assistants; B.L.S. Instructor, American Safety & Health Institute

Vallarta, Jessica - Certified Pharmacy Technician Advanced (CPhT-Adv); Certified Medication Requisition Technician, A.A. in General Studies, South Mountain Community College

Waite, Amy - Licensed Massage Therapist; B.S.Ed in Elementary Education, Northern Arizona University.

Ybarra, Mark Anthony - Licensed Massage Therapist

Yohe, Christina - B.S. in Exercise Physiology, University of Arizona; Firefighter I & II; Fire Instructor 1; Hazmat Technician; Fire Inspector 1; NREMT Paramedic; AZDHS Certified Emergency Paramedic; ASHI; BLS Instructor; NRP

GateWay Early College High School Administration

Guillien, Blas - Interim Principal

Penmar, Elisa - Assistant Principal

Gaiser, Maria - Registrar/Administrative Coordinator

Machado, Jessalin - Grant Officer

Frump, Jonathan - Counselor Academic

Carrol, Teri - Social Worker

GateWay Early College High School Instructors

Blevins, Eric - Science

Bracamontes, Maria - English

Brock, Chris - English

Cisneros, Juan - Science

Fair, Darnetta - Social Studies

Hawkes, Karen - Capstone

Hoffman, Lyndsey - English

Jackson, Lenzie - Elective

Jimenez, Abel - English Language Learners (ELL)

Meza, Carol - Science

Montanaro, Blaine - English

Paserk, Rachel - Math

Quick, Stephany - Science

Ray, Michelle - Freshmen Success

Smith, Marcus - English

Tuxtla, Yair - Special Education (SPED)

Wiersum, Roger - Social Studies

Courses

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AAA104	Visualization in Activated Learning		Techniques for using mental imagery in the activated learning process. Processes include mental rehearsal, relaxation, and affirmation during self-instruction, test taking, interpersonal relationships, and sports	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
AAA105	Peak Performance in Activated Learning		Techniques which enable the individual to achieve levels of peak performance using the activated learning process. Includes methods for developing a high level of motivation and self-discipline to achieve peak performance in areas such as sports, public speaking, and job productivity	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
AAA115	Creating College Success	CPD115	Strategies to create success in college. Methods for selecting and developing effective academic strategies, increasing self-awareness and developing self-management strategies. Elements of college resources and relationships with others explored in support of students' educational experience	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
AAA150	Strategies for College Success	CPD150	Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
AAA150AC	Educational and Career Planning	CPD150A C	Emphasis on increasing student success through educational and career planning.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
AAA298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
AAA298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Acad	LAB 2.0 2.0 0.0
AAA298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Acad	LAB 3.0 3.0 0.0
ABA101	Hand and Power Tools		Selection, use, maintenance and safety	Prerequisites: Registered		Occ	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			procedures for common hand and power tools used in the construction industry.	apprentice status or permission of the Apprenticeship Coordinator.			
ABA102	Electrical Fundamentals		Fundamentals of electricity including electrical hazards, Occupational Safety and Health Administration (OSHA) regulations, units of measurements and using Ohm's law. Circuit characteristics and the use of Kirchoff's voltage and current laws to calculate voltage drop, current and resistance. Operation and use of specific meters. Includes an introduction to the National Electrical Code (NEC)	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ABA103	Hand Bending of Electrical Conduit		Conduit bending and installation. Techniques for using hand operated and step conduit benders. Cutting, reaming and threading conduit	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
ABA104	Raceways, Boxes, Fittings, Anchors/Supports		Types and applications of conduit, raceways, wireways and ducts. Types, applications and wiring techniques for conductors. Hardware and systems used to mount and support boxes, receptacles and other electrical components	Prerequisites: Registered Apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5
ABA106	Introduction to Materials Handling		Introduction to materials handling equipment and appropriate use for common job-site tasks. Recognize hazards associated with materials handling and proper techniques and procedures.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 0.5 0.5 0.5
ABA112	Electrical I		Theories and concepts in electrical safety basics and OSHA 10 certification. Introductory	Prerequisites: Registered apprenticeship status or		Occ	L+L 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			concepts in construction math, hand and power tools, drawings, rigging, and materials handling. Emphasis on communication and employability skills.	permission of Apprenticeship Coordinator.			
ABA114	Electrical II		Fundamentals of the electrical trade, residential electrical services and test equipment. Emphasis on safety, electrical circuits, theory, National Electrical Code, device boxes. Use and selection of hand bending, raceways, fittings, conductors, cables. Interpretation of electrical drawings.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
ABA120	Carpentry Fundamentals		Overview of the carpentry trade. Apprenticeship programs and responsibilities of the apprentice. Types and uses of nails, fasteners and adhesives. Types of wood, lumber and manufactured wood products	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABA121	Floor and Wall Systems		Framing systems, floor construction, center beam and post support systems. Construction of sills, joists and bridging. Subflooring, mechanical connectors and the use of prefabricated joists. Wall construction, stud walls, panelized walls, masonry walls, post and beam walls, use of metal studs and drywall construction.	Prerequisites: (Registered apprentice status and a grade of C or better in ABA120) or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
ABA122	Electrical III		Theory and application of alternating current, lighting, conduit bending, pull and junction boxes.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
ABA124	Electrical IV		Principles of conductor installations, cable trays, conductor terminations	Prerequisites: Registered apprenticeship		Occ	L+L 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and splices. Emphasis on grounding, bonding, circuit breakers, and fuses. Fundamental concepts of control systems.	p status or permission of Apprenticeship Coordinator.			
ABA130	Installation of Electric Services		Electric services for commercial and industrial installations. Blueprints, diagrams and electrical calculations. Grounding, connecting three phase services and the installation of panelboards, switches and load centers	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABA135	Cast-In-Place Stairs		Cast-In-Place and Precast stair installation techniques, forming, erecting and safety procedures. Review American Concrete Institute (ACI) Codes and standard specifications.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABA136	Communications in Construction	IND136	Communication in the construction industry. Positive direct communication, written communication, active listening, understanding, negotiation, and dealing with difficult people. Communication skills at all organizational levels, with groups, combining oral and written communication for maximum effectiveness.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ABA150	Advanced Calculations for Electricians		Advanced mathematical calculations in the electrical industry. Powers and roots in watts, voltage, current and resistance. Metric and engineering units. English and metric systems for length, area, volume and mass, and energy and temperature measurements. Ratios, proportions, formulas, symbols and representation. Trigonometry and the Pythagorean theory.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Plane and rotating vectors. Basic functions of the scientific calculator for electricians				
ABA179	Installing and Sizing Water Supply Piping		Connecting piping to a water main. Plumbing connections to buildings and air and hydrostatic testing of water supply piping. Operation and installation of water heaters. Types, operation and installation of water meters. Installation of water supply systems to given structures. Effects of valves, fittings and piping on water pressure. Calculations of pressure drop and sizing procedures for water supply piping. Principles of back siphonage and backflow prevention	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 3.0 3.0 3.0
ABA192	Plumbing Level I		History of plumbing, modern plumbing, safety, human relations, and construction career opportunities. Hand and power tool safety, use, and maintenance. Plumbing drawings, components, and symbols. Materials, schedules for plastic, copper, and cast-iron. Fittings, valves, hangers, and supports. Measuring, cutting, reaming, and joining pipe. Safety precautions for installation, operation and maintenance. Fixtures and faucets. Drain, waste, and vent systems. Water distribution systems.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
ABA204	Contactors and Relays		Operating principals of contactors and relays. Function in an electrical system. Operation and installation of specific contactors and relays. Interpretation of wiring diagrams. Connect and	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			test a simple control circuit				
ABA207	Construction Trades: Green Environment		Daily activities at work and at home that affect green environment. Leadership in Energy and Environmental Design (LEED) rating process. Carbon footprint and ways to reduce it. Construction of buildings that affect green environment. Application of principles of green building rating system.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABA222	Introduction to Welding, Brazing and Cutting		Arc welding theory and safety hazards. AC, DC and AC-DC welding machines. Use of electrodes and safety requirements for arc-welding. Basic welding techniques and gas metal-arc and gas tungsten-arc welding processes. Brazing and cutting using an oxyacetylene torch.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 3.0 3.0
ABA232	Electrical V		The course content includes Load Calculations - Branch and Feeder Circuits, Conductor Selection and Calculations, Overcurrent Protection, Raceways/Wiring/Devices and Boxes, Voice/Data and Video.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
ABA234	Electrical VI		Theories and concepts in distribution equipment, transformers, and commercial electrical services. Emphasis on motor calculations and voice/data and video. Operation of motor controls.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
ABA242	Electrical VII		Principles of course load calculations, feeder and services and specialty transformers. Selection of standby and emergency systems. Emphasis on basic electronic theory, fire	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			alarm systems and health care facilities.				
ABA244	Electrical VIII		Principles of heating, ventilation, and air conditioning (HVAC) controls and heat tracing. Use and control of freeze protection. Basics in motor operation and maintenance. Focus on medium-voltage terminations/splices and special locations. Fundamentals of Crew Leadership.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
ABA251	High Voltage Termination and Splicing		Terminations and splices in high voltage systems (600+ volts). Identifying and splicing specific types of cables and making terminations. Includes using splicing kits and following manufacturer's specifications. Testing techniques and calculations	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABA255	Commercial, Industrial and Special Lighting		Operating characteristics of incandescent, fluorescent and high intensity discharge lamps. Lighting controls and fixture installations. Blueprint reading exercise for commercial and industrial installations. Lighting requirement calculations. National Electrical Code (NEC) requirements for specialty lighting fixtures	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 0.5 0.5 0.5
ABA298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development.				
ABA298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 2.0 2.0 0.0
ABA298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 3.0 3.0 0.0
ABC118	OSHA Standards and Regulations	PNT118	Provisions of and implementation of Occupational Safety and Health Administration (OSHA) Act in the work place. Rights and responsibilities under the OSHA Act. Appeals process, record keeping, and voluntary protection programs. OSHA's construction and general industry standards.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Overview of the requirements of the more frequently referenced standards.				
ABC119	Basic Safety	MEC119	Overview of safety rules and procedures for working on construction job sites	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABC120	Basic Calculations for Construction	MEC120 PNT120	Addition, subtraction, multiplication and division of whole, decimal, fraction and metric numbers. Percentage and fraction conversions. Metric units of length, weight, volume and temperature. Metric system as it relates to the construction trade. Basic algebra and geometry operations and equations. Area and volume calculations of shapes.	Prerequisites: None.		Occ	L+L 1.5 1.5 1.5
ABC121	Introduction to Hand and Power Tools	MEC121 PNT121	Overview of the use, maintenance and safety procedures for common hand and power tools.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABC122	Rigging Safety and Equipment	MEC122	Rigging safety, equipment and inspection. Includes crane hand signals, common rope knots, types of derricks and cranes and safety procedures for rigging and moving materials and equipment.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABC123	Introduction to Construction Drawings		Basic concepts of construction drawings, including terms and symbols. Drawing interpretation, use of drawing dimensions and recognition of drawing classifications.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				p Coordinator.			
ABC124	Conduit Bending		Types of conduit benders and bends. Conduit bending procedures and use of bends in conduit systems	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABC126	Electrical Test Equipment		Selection, inspection, use and maintenance of common electrical test equipment	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABC130	Conductor Installation/Termination		Transportation, storage and setup of cable reels, methods of rigging and procedures for installing conductors using cable pulls in raceways and cable trays. Also methods of terminating and splicing conductors	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.0 1.0
ABC131	Cable Tray Installation		National Electrical Manufacturer's Association (NEMA) and National Electrical Code (NEC) requirements for cable tray modified installation and cable installation procedures.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 0.5 0.5 0.5
ABC132	Circuit Breakers and Fuses		National Electrical Code (NEC) requirements, Ground Fault Circuit Interrupters (GFCI), overcurrents, fuse sizing, safety techniques and short-circuit calculations.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.0 1.0
ABC133	Basic Lighting		Principles of illumination and specific light sources. Includes practical applications for residential, commercial and industrial installations	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ABC135	Fundamentals of Concrete		Materials used to make concrete, including specific types of cement, aggregate, admixtures and reinforcing materials. Handling procedures for concrete, conveying and placing concrete and finishing techniques for concrete slab. Construction of foundations and formwork	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABC136	Roof Systems		Defining roof terminology. Identifying and understanding specific roof systems. Using the framing square and essex scale to calculate and measure specific types of rafters. Transcribing and transferring measurements onto rafters. Using "speed square" to determine measurements for specific types of rafters. Defining unequal roof pitch. Identifying specific types of plank and beam roofs and roof trusses used in the industry today.	Prerequisites: (Registered apprentice status and a grade of C or better in ABC/MEC/P NT120) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABC142	Alternating Current		Production of electricity, including; current, voltage, induction, mutual inductance and capacitance. Calculations using Ohms Law. Operation of a three phase system.	Prerequisites: (Registered apprentice status and a grade of C or better in ABC/MEC/P ED120) or permission of the Apprenticeship Director.		Occ	LEC 1.0 1.0 1.0
ABC143	Motors: Theory and Application		Overview of electric motors including types, operation, and applications. Assembly and disassembly. Mounting and connections according to National Electrical Code (NEC). Also	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			troubleshooting, installation and handling				
ABC144	Grounding		Types of grounding and proper installation of grounds and grounding. OSHA and National Electrical Code (NEC) requirements specific to grounding. Purpose and operation of Ground Fault Circuit Interrupters (GFCI). Effects of soils and environment. Selection of grounds and grounding material for specific situations. Testing grounds with a "megger"	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABC221	Motors and Motor Controls		Electrical symbols, line diagrams and logic. Contactors and starters, control devices, reversing circuits and power distribution systems. Electronic control devices, programmable controllers, reduced voltage starters, accelerating and decelerating methods and circuits. Preventive maintenance and trouble shooting	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
ABC222	Hazardous Locations-Electrical		Hazardous location classifications. Equipment approved for use in specific hazardous locations. Wiring methods	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABC226	Raceways, Wiring Devices, Boxes and Fittings		Sizing, selecting, and installing raceways, junction boxes, outlet boxes and wiring devices. Calculating fill requirements according to National Electrical Code (NEC) regulations. Calculating bending radii in boxes and cabinets. Types and purpose of wiring devices and	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			calculating maximum loads on such devices				
ABC230	Stair Construction		Stair parts, materials and types. Stair dimensions and practical techniques for stair layout. Rough forming methods.	Prerequisites: (Registered apprentice status and a grade of C or better in ABC/MEC/P NT120) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
ABC231	Exterior Wall Finishes		Exterior wall finish work; placement and hanging of windows, siding and flashing for walls. Installation of floors, chimneys and insulation included	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 3.0 3.0 3.0
ABC256	Basic Plumbing		Plumbing fixtures, drainage fixture unit ratings, and installation procedures. Includes procedures for installing fixtures, water heaters, shower and bath units, and dishwashers. Safety stressed.	Prerequisites: None.		Occ	L+L 4.0 4.0 4.0
ABC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 1.0 1.0 0.0
ABC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to	Prerequisites: Permission of Program	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Director or Instructor.	NCY COURSE		
ABC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	LAB 3.0 3.0 0.0
ABO103	Introduction to Auto Body Repair		An introduction to basic auto body repair skills in dent removal. This course includes body filler application and sanding, plastic repair, metal repair, welding, plasma cutting, collision estimating, and air conditioning refrigerant recovery.	Prerequisites: None.		CLK	156
ABO104	Introduction to Automotive Refinishing		An introduction to basic refinishing skills with dual and single stage paints. This course includes spray equipment setup, panel prep and tape, paint correction with cut and buffing, scratch repair and proper blending techniques, basic	Prerequisites: None.		CLK	156

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			knowledge of toners and paint mixing.				
ABO203	Advanced Automotive Body Repair		An advanced course in non-structural auto body repair. This course includes disassembly of a vehicle, development of a collision repair plan, and repair. Includes body filler application and sanding, plastic repair, metal repair, and welding.	Prerequisites: None.		CLK	156
ABO204	Advanced Refinishing Fundamentals		An advanced course in vehicle refinishing and reassembly. This course includes spray equipment setup, vehicle prep and tape, paint correction with cut and buffing, scratch repair and proper blending techniques, knowledge of toners and paint mixing.	Prerequisites: None.		CLK	156
ABS171	Introduction to Good Manufacturing Practices(GMP)-Regulated Manufacturing		Course is designed to provide individuals with an overview of Good Manufacturing Practices (GMP), their application in a variety of industries and the opportunities for in such fields.	Prerequisites: None.	ABS/BIO17 1 may include required field trips. ABS/BIO17 1 may be repeated for a total of six (6) credits.	Occ	LEC 3.0 3.0 3.0
ABS173	Basic Instrumentation and Lab Math		Introductory course covering basic equipment, measurements, and calculations used in biotechnology laboratories.	Prerequisites: None. BIO156 or BIO181 recommended.		Occ	LEC 1.0 1.0 1.0
ABS174	BioSafety		General laboratory safety, hazardous chemical use and disposal, biohazardous material use and disposal, biosafety procedures, and radiation safety.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ABS175	Research Methods in Biology		Fundamentals of planning and conducting biological experiments, including ones that simultaneously vary multiple experimental	Prerequisites: None. BIO156 or BIO181 recommended.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			variables. Subsequent analysis, interpretation, and reporting of results.				
ABS194AA	Special Topics in Applied Biological Sciences		Exploration of the foundation and application of a current topic in biosciences.	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0
ABS194AB	Special Topics in Applied Biological Sciences		Exploration of the foundation and application of a current topic in biosciences.	Prerequisites: Permission of Instructor.		Occ	LEC 2.0 2.0 2.0
ABS194AC	Special Topics in Applied Biological Sciences		Exploration of the foundation and application of a current topic in biosciences.	Prerequisites: Permission of Instructor.		Occ	LEC 3.0 3.0 3.0
ABS274	Introduction to Wildlife Management		Introduction to the field of wildlife biology/management and the legal, cultural, ecological, and population dynamics of wildlife biology and management. Covers wildlife management objectives, management techniques, research techniques, and the organizational environment that wildlife biologists work in; provides an overview of careers in the field and guidance in planning a career.	Prerequisites: High school biology with a grade of C or better or a grade of C or better in BIO100 or BIO181 or permission of Instructor.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
ABS294AA	Special Topics in Applied Biological Sciences-Advanced		Exploration of a current topic in the biosciences and its advanced applications.	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0
ABS294AB	Special Topics in Applied Biological Sciences-Advanced		Exploration of a current topic in the biosciences and its advanced applications.	Prerequisites: Permission of Instructor.		Occ	LEC 2.0 2.0 2.0
ABS294AC	Special Topics in Applied Biological Sciences-Advanced		Exploration of a current topic in the biosciences and its advanced applications.	Prerequisites: Permission of Instructor.		Occ	LEC 3.0 3.0 3.0
ACC105	Payroll, Sales and Property Taxes		Tax reporting for payroll, sales, and personal property	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ACC107	Bookkeeping Theory and Practice		Fundamental accounting practices; application to retail stores, professional firms, and personal service operations.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0
ACC109	Accounting Concepts		Introduction to accounting with	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			emphasis on analysis and applications of financial information.	GBS151 and reading ability equivalent to RDG100 or RDG100LL suggested but not required.			
ACC110	Understanding and Using Accounting Systems		Develops basic comprehension of the balance sheet, income statement, and equity and cash flow statements. Explores usage of specialized journals and subsidiary ledgers in a computerized system. Studies the impact of various transactions on an enterprise, including payroll, receivables, payables, inventory, cash and credit card receipts	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
ACC111	Accounting Principles I		Fundamental theory of accounting principles and procedures	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ACC112	Accounting Principles II		Continuation of the fundamental theory of accounting principles and procedures, including interpretation of general purpose financial statements.	Prerequisites: A grade of C or better in ACC111 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
ACC115	Computerized Accounting		Understanding of fundamental accounting principles and mastery of an accounting information systems including the general ledger, accounts receivable, accounts payable and payroll.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
ACC121	Individual Tax Preparation		Theory and practice of accounting for individual taxation.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
ACC211	Financial Accounting		Introduction to theory and practice in the preparation and interpretation of general purpose financial statements.	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: ACC 2201	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ACC212	Managerial Accounting		Development and analysis of accounting information for managerial planning and control	Prerequisites: A grade of C or better in (ACC111 and ACC112) or ACC211 and (CIS105 or permission of Department or Division).	Course Attribute(s): Arizona Shared Unique Number SUN#: ACC 2202	Occ	LEC 3.0 3.0 3.0
ACC215	Governmental and Not-For-Profit Accounting		Theories and procedures of accounting for governmental and not-for-profit organizations.	Prerequisites: A grade of C or better in ACC112 or ACC211, or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
ACC216	Fraud Examination		Fundamental theory of fraud examination methodology to detect and prevent accounting fraud.	Prerequisites: A grade of C or better in (ACC230 or ACC112 or ACC211) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
ACC219	Intermediate Accounting I		Continuation of the theory and practice of financial accounting, applicable to assets, liabilities, equity related problems of income determination and financial reporting.	Prerequisites: A grade of C or better in ACC212 or ACC240 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
ACC220	Intermediate Accounting II		Continuation of the theory and practice of financial accounting, applicable to assets, liabilities, equity determination of asset values, liabilities, and related problems of income determination, special topics and financial reporting.	Prerequisites: A grade of C or better in ACC219 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
ACC221	Tax Accounting		Theory and practice of accounting for personal, corporate, and non-corporate taxation.	Prerequisites: A grade of C or better in ACC111 or ACC211 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ACC222	Payroll Accounting		Payroll records for businesses required by federal and state laws	Prerequisites: A grade of C or better in ACC111 or ACC211 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
ACC224	Tax Practice Administration and Business Entity Analysis		Federal income tax representation, practices, and procedures, including trust and estate income tax, exempt organizations, and retirement plans.	Prerequisites: A grade of C or better in ACC121 or ACC221.		Occ	LEC 3.0 3.0 3.0
ACC230	Uses of Accounting Information I		Introduction to the uses of accounting information for internal and external purposes with emphasis on financial statement analysis.	Prerequisites: A grade of C or better in ACC111 or ACC211 or (ENG101 and MAT151 and CRE101) or appropriate test scores on the District English, Reading and Math placement exams.		Occ	LEC 3.0 3.0 3.0
ACC240	Uses of Accounting Information II		Introduction to the uses of accounting information for internal and external purposes with emphasis on analysis for use by management.	Prerequisites: A grade of C or better in ACC230.		Occ	LEC 3.0 3.0 3.0
ACC250	Introductory Accounting Lab		Procedural details of accounting for the accumulation of information and generation of reports for internal and external users.	Prerequisites: None.		Occ	LAB 1.0 3.0 3.0
ACC260	Certified Bookkeeper (CB) Preparation		Fundamental accounting practices including accrual and deferral adjustments, correcting common transaction recording errors, bank reconciliations and adjusting entries. Includes payroll accounting and related	Prerequisites: A grade of C or better in ACC111 or ACC211 or (bookkeeping experience and permission of Instructor).		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Federal and State payroll law requirements. Accounting for depreciation for financial and tax accounting purposes covered. Inventory valuation methods. Includes calculating, recording, and reporting under generally accepted accounting principles (GAAP). Preventive internal control procedures to detect organizational fraud, theft, and embezzlement covered.				
ACC270AA	Accounting Internship		Accounting work experience in a business or industry. Eighty hours of designated work per credit per semester.	Prerequisites: Permission of Department or Division.	ACC270AA may be repeated for a total of four (4) credits.	Occ	LAB 1.0 1.0 0.0
ACC270AB	Accounting Internship		Accounting work experience in a business or industry. Eighty hours of designated work per credit totaling 160 hours per semester.	Prerequisites: Permission of Department or Division.	ACC270AB may be repeated for a total of four (4) credits.	Occ	LAB 2.0 2.0 0.0
ACC270AC	Accounting Internship		Accounting work experience in a business or industry. Eighty hours of designated work per credit totaling 240 hours per semester.	Prerequisites: Permission of Department or Division.	ACC270AC may be repeated for a total of six (6) credits	Occ	LAB 3.0 3.0 0.0
ACC282AA	Volunteerism Accounting: Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: A grade of C or better in ACC111 or (ACC230 and ACC250) and permission of Instructor.	ACC282AA may be repeated for a total of six (6) ACC282 credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0
ACC282AB	Volunteerism Accounting: Service Learning Experience		Service learning field experience within private/public agencies, educational institution,	Prerequisites: A grade of C or better in ACC111 or (ACC230 and	ACC282AB may be repeated for a total of six (6) credit	Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and citizen volunteer groups.	ACC250) and permission of Instructor.	hours. Standard grading available according to procedures outlined in catalog.		
ACC282AC	Volunteerism Accounting: Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: A grade of C or better in ACC111 or (ACC230 and ACC250) and permission of Instructor.	ACC282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 3.0 3.0 0.0
ACC296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
ACC296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 5.0 0.0
ACC296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
ACC296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
ACC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
ACC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
ACC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ACT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
ACT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
ACT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
AEN102	Fundamentals of Facility Energy Management		Process of evaluation of types of energy use. Evaluation of the structure, energy transfer, lighting, heating, and cooling systems. Introduction to basic thermal process, including thermal capacity, heat transfer modes, psychometric charts, fan and pump laws, energy storage, and other factors related to HVAC and occupant comfort in commercial facilities. Includes an introduction to energy generation, construction and equipment, and the impact of these factors on cost and economic justification.	Prerequisites: None.		Occ	LEC 4.0 4.0 4.0
AEN103	Hand Tools and Basic Maintenance for Building Energy Technicians		Basic tools and equipment for the building energy technician. Includes an overview of electrical theory and procedures for measurement and evaluation of common electric circuits, specific heating, ventilation, and air conditioning (HVAC) mechanical hardware devices, analysis of building environmental conditions, and safe procedures for starting and stopping equipment and systems. Also addresses basic repair and replacement of electric outlets, fuses, breakers, filters, and necessary diagnostics on related electrical and mechanical items.	Prerequisites: None.		Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AEN142	Introduction to Energy Management		Introduction to building energy management concepts and procedures. Includes the carbon cycle, building envelope and materials of construction in their relation to energy management, occupant comfort, and indoor air quality. Major emphasis on identification of building system components, relations, interactions and basic operation, evaluation and reporting of energy trending and consumption, and efficiency.	Prerequisites: A grade of C or better in AEN102, AEN103 and CNS182.		Occ	L+L 3.0 3.0 3.0
AEN190	Device Interface and Selection		Overview of building management systems, components, and controls. Includes energy consumption basics and measurement in addition to building systems evaluation. Also covers the process for evaluation and documentation of systems as well as recommendations for potential energy conservation.	Prerequisites: A grade of C or better in AEN142 and (MAT112 or MAT122).		Occ	L+L 3.0 5.0 5.0
AES101	Heritage and Values I		Survey course designed to introduce students and cadets to the Department of the Air Force (DAF) and the Air Force Reserve Officer Training Corps (AFROTC). The course allows students and cadets to examine general aspects of the DAF, leadership fundamentals, service benefits, and opportunities for officers. The course also lays the foundation for becoming an Airman or Guardian by outlining our heritage and values. As a foundational course, this	Prerequisites: None.		Acad	LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			course provides a historical perspective such as lessons on war and US military, DAF operations, principles of war, and airpower.				
AES103	Heritage and Values II		Survey course designed to introduce students and cadets to the Department of the Air Force (DAF) and the Air Force Reserve Officer Training Corps (AFROTC). The course allows students and cadets to examine general aspects of the DAF, leadership fundamentals, service benefits, and opportunities for officers. The course also lays the foundation for becoming an Airman or Guardian by outlining our heritage and values. As a foundational course, this course provides a historical perspective such as lessons on war and US military, DAF operations, principles of war, and airpower.	Prerequisites: None.		Acad	LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0
AES201	Team and Leadership Fundamentals I		A survey course designed to provide a fundamental understanding of both leadership and team building. Students and cadets will learn that there are many layers to leadership, including aspects that do not always come to mind. Such things include listening, understanding themselves, being a good follower, and problem solving efficiently. Students and cadets will apply these leadership perspectives when completing team building activities and discussing things like conflict management.	Prerequisites: None.		Acad	LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Students and cadets should demonstrate basic verbal and written communication skills.				
AES203	Team and Leadership Fundamentals II		A survey course designed to provide a fundamental understanding of both leadership and team building. Students and cadets will learn that there are many layers to leadership, including aspects that do not always come to mind. Such things include listening, understanding themselves, being a good follower, and problem solving efficiently. Students and cadets will apply these leadership perspectives when completing team building activities and discussing things like conflict management. Students and cadets should demonstrate basic verbal and written communication skills.	Prerequisites: None.		Acad	LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0
AES294	Air Force Physical Fitness		Physical training component of Air Force ROTC. Covers topics of immediate or special interest to a faculty member and students.	Prerequisites: None.	AES294 may be repeated for credit. AES294 must be taken concurrently with AES101, AES103, AES201 and AES203.	Acad	L+L 1.0 3.0 0.0
AES298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type	Prerequisites: None.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
AES298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: None.		Acad	LAB 2.0 2.0 0.0
AES298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: None.		Acad	LAB 3.0 3.0 0.0
AET107	Private Pilot Ground School		Ground school in preparation for the Federal Aviation	Prerequisites: None. Corequisites:		Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Administration (FAA) Private Pilot Certificate written examination. Includes aerodynamics, airplane systems, airports, airspace, communications, Federal Air Regulations, navigation, airplane performance, flight planning, and flight physiology. Requires passing a written exam similar to the FAA Private Pilot written exam.	AET110 or AET112.			
AET107HH	Private Pilot Ground School: Helicopter		Ground school in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate written examination. Includes aerodynamics, helicopter systems, airports, airspace, communications, Federal Air Regulations, navigation, helicopter performance, flight planning, and flight physiology. Requires passing a written exam similar to the FAA Private Pilot written exam.	Prerequisites: None. Corequisites: AET110HH.		Occ	LEC 5.0 5.0 5.0
AET110	Private Pilot Flight		Flight course in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate practical examination. Includes preflight preparation and planning, ground operations, airport operations, departures, navigation, basic instrument flight, night flight, slow flight, ground reference maneuvers, emergency operations, and arrivals. Approximately 50 hours airplane flight experience at student's expense required. Requires	Prerequisites: None. Corequisites: AET107.		Occ	LAB 1.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			passing check ride similar to the FAA Private Pilot check ride.				
AET110HH	Private Pilot Flight: Helicopter		Flight course in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate practical examination. Includes preflight preparation, preflight procedures, airport and heliport operations, hovering maneuvers, takeoffs, landings, and go-rounds, performance maneuvers, navigation, emergency operations, night operations, and post-flight procedures. Approximately 75-85 hours helicopter flight experience at student's expense required. Requires passing check ride similar to the FAA Private Pilot check ride.	Prerequisites: None. Corequisites: AET107HH.		Occ	LAB 2.0 5.0 5.0
AET112	Private Pilot Flight - Test Course		Flight course in preparation for transition into continued AET course work. Includes preflight preparation and planning, ground operations, airport operations, departures, navigation, basic instrument flight, slow flight, ground reference maneuvers, emergency operations, and arrivals. Requires passing check ride similar to the Federal Aviation Administration Private Pilot check ride.	Prerequisites: FAA Private Pilot Airplane Single-Engine Land or advanced certification. Corequisites: AET107.	Flight and ground briefing time at student's expense required.	Occ	LAB 1.0 5.0 5.0
AET115	Aviation Meteorology		Meteorology for professional pilots. Includes atmosphere, air mass circulation, cloud type identification, weather hazards, and high altitude, Arctic, and tropical weather systems. Basic forecasting, use of Direct User Access Terminal	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			(DUAT) systems and reading and interpreting weather charts				
AET203	Basic Airplane Systems		Beginning commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examination. Discussions will include, but not be limited to reciprocating engines, engine systems, airplane systems, altitude systems, and commercial regulations.	Prerequisites: A grade of C or better in (AET207, AET217, and AET210) or permission of Instructor. Corequisites: AET222.		Occ	LEC 3.0 3.0 3.0
AET203HH	Basic Helicopter Systems		Beginning commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examination Discussions will include, but not be limited to reciprocating engines, engine systems, helicopter systems, altitude systems, and commercial regulations.	Prerequisites: A grade of C or better in AET207HH, AET217HH and AET210HH or permission of Instructor. Corequisites: AET220HH and AET213HH.		Occ	LEC 2.0 2.0 2.0
AET205	Aircraft Structures, Systems, and Maintenance		Survey of airframe structures, systems, and maintenance regulations for pilots. Includes aircraft and airfoil design and construction, and electrical, instrumentation, and automatic flight control systems. Maintenance privileges and limitations, and forms and records	Prerequisites: Private Pilot Certificate or permission of Instructor.		Occ	LEC 4.0 4.0 4.0
AET207	Attitude Instruments and Navigation		Beginning instrument pilot ground course in preparation for the Federal Aviation Administration (FAA) Instrument Pilot Rating and Instrument Rating written examinations.	Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET210,		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes preflight preparation, flight instruments, basic attitude instrument flying, radio navigation systems, and technically advanced aircraft systems.	AET217 and AET220			
AET207HH	Attitude Instruments and Navigation: Helicopter		Beginning instrument pilot ground course in preparation for the Federal Aviation Administration (FAA) Instrument Pilot Rating and Instrument rating written examinations. Includes preflight preparation, flight instruments, basic attitude instrument flying, radio navigation systems, and technically advanced helicopter systems.	Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: AET210HH and AET217HH.		Occ	LEC 2.0 2.0 2.0
AET208	Aviation Safety		Introduction to aviation safety, including aviation safety programs, risk management, pilot psychology, physiology, human factors, and accident review and investigation.	Prerequisites: A grade of C or better in AET107 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
AET210	Commercial Flight Lab I		Initial flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on instrument and technically advanced aircraft operations. Student must fly approximately 10 hours at own expense. Requires passing operational stage checks similar to the FAA check rides.	Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET217 and AET220.		Occ	LAB 1.0 5.0 5.0
AET210HH	Instrument Flight: Helicopter		Initial helicopter flight course in preparation for the Federal Aviation Administration (FAA) Instrument rating practical examination. Emphasis on helicopter instrument operations.	Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: AET207HH		Occ	LAB 2.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Student must fly approximately 75 hours at own expense. Requires passing operational phase checks.	and AET217HH.			
AET213	Aerodynamics and Performance		Advanced commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examinations. Includes discussion of aerodynamic factors including lift, weight, drag, and thrust. Discussions will include, but are not limited to aerodynamics, performance, safe and efficient airplane operations, airplane stability and control, stalls, and spins.	Prerequisites: A grade of C or better in AET207, AET217, and AET210. Corequisites: AET221.		Occ	LEC 3.0 3.0 3.0
AET213HH	Aerodynamics and Performance: Helicopter		Advance commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examinations. Includes discussion of aerodynamic factors including lift, weight, drag, and thrust. Discussions will include, but are not limited to aerodynamics, performance, and safe and efficient helicopter operations.	Prerequisites: A grade of C or better in AET207HH, AET217HH, and AET210HH. Corequisites: AET220HH and AET203HH.		Occ	LEC 2.0 2.0 2.0
AET215	Aircraft Powerplants		Survey of engines and engine systems for pilots. Includes theory and analysis of reciprocating and turbine aircraft engines. Lubrication, ignition, fuel control, cooling, exhaust, and propellers.	Prerequisites: A grade of C or better in AET205 or permission of Instructor.		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AET217	Instrument Procedures		Advanced instrument pilot ground school course in preparation for the Federal Aviation Administration (FAA) Instrument pilot rating and Instrument rating written examinations. Includes Federal Aviation Regulations, instrument approach procedures, and instrument enroute considerations. Requires passing written exam similar to the Instrument pilot rating and Instrument rating written exams.	Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET210 and AET220.		Occ	LEC 3.0 3.0 3.0
AET217HH	Instrument Procedures: Helicopter		Advance helicopter instrument pilot ground school course in preparation for the Federal Aviation Administration (FAA) Instrument pilot rating and Instrument rating written examinations. Includes Federal Aviation Regulations, instrument approach procedures, and instrument enroute considerations. Requires passing written exams similar to the Instrument pilot rating and Instrument rating written exams.	Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: AET210HH and AET207HH.		Occ	LEC 2.0 2.0 2.0
AET220	Instrument Flight Lab		Flight course in preparation for the Federal Aviation Administration (FAA) Instrument rating practical examination. Emphasis on instrument operations. Student must fly approximately 40 hours at own expense. Requires passing of stage checks similar to the FAA check ride.	Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET210 and AET217.		Occ	LAB 1.0 5.0 5.0
AET220HH	Commercial Flight: Helicopter		Advanced flight course in preparation for the Federal Aviation Administration (FAA)	Prerequisites: A grade of C or better in AET210HH,		Occ	LAB 2.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Commercial Pilot practical examination. Emphasis on commercial and high performance helicopter operations. Student must fly approximately 60 hours at own expense. Requires passing instrument rating and commercial pilot stage checks similar to the FAA check rides.	AET207HH and AET217HH. Corequisites: AET203HH and AET213HH.			
AET221	Commercial Flight Lab II		Intermediate flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial and solo cross-country flight operations. Student must fly approximately 45 hours at their own expense. Maneuvers and procedures during dual instruction are designed to be performed with flight instructor guidance. Requires passing commercial pilot stage checks similar to the FAA check ride.	Prerequisites: A grade of C or better in AET207 and AET210 or by permission of Instructor. Corequisites: AET213.		Occ	LAB 1.0 5.0 5.0
AET222	Commercial Flight Lab III		Advanced flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial operations. Student must fly approximately 45 hours at their own expense. Maneuvers and procedures are designed to be performed with little flight instructor guidance. Requires commercial pilot stage checks similar to the FAA check ride.	Prerequisites: A grade of C or better in AET221 and AET213. Corequisites: AET203.		Occ	LAB 1.0 5.0 5.0
AET225	Advanced Aircraft Systems		Survey of advanced aircraft systems to	Prerequisites: Private Pilot		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			include electrical, automatic flight control, pressurization, cabin atmosphere, ice control, rain control, fire detection and extinguishing. Includes theory and analysis of turbine aircraft engines. Introduction to turbine engine systems to include lubrication, ignition, fuel control, cooling, exhaust, and propellers. Includes overview of maintenance publications, forms and records.	Certificate or permission of Instructor.			
AET227	Certified Flight Instructor: Airplane, Single Engine Land Ground School		Ground school in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor and Fundamentals of Instruction written examinations. Includes fundamentals of instruction, aerodynamics, airplane performance, systems, operations, weight and balance, weather, federal regulations, navigation, maneuvers, pilot physiology, ethics, and aeronautical decision making. Requires passing written exams similar to the FAA Certified Flight Instructor: Airplane, and Fundamentals of Instruction written exams.	Prerequisites: A grade of C or better in AET240 or FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET230.		Occ	LEC 5.0 5.0 5.0
AET227HH	Certified Flight Instructor: Helicopter Ground School		Ground school in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor and Fundamentals of Instruction written examinations. Includes fundamentals of instruction, aerodynamics, helicopter performance, systems,	Prerequisites: FAA Commercial Pilot Certificate. Corequisites: AET230HH.		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			operations, weight and balance, weather, federal regulations, navigation, maneuvers, pilot physiology, ethics, and aeronautical decision making. Requires passing written exams similar to the FAA Certified Flight Instructor: Helicopter, and Fundamentals of Instruction written exams.				
AET229	Crew Resource Management		Crew communications, teamwork, leadership, "followership," decision-making, and situational awareness; also the benefits of diversity, and the role diversity plays in the modern aerospace industry. Emphasis on utilization of all available resources in order to conduct a safe and efficient flight.	Prerequisites: A grade of C or better in AET217 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
AET230	Certified Flight Instructor: Airplane, Single Engine Land Flight Lab		Flight course in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor: Airplane practical examination. Emphasis on demonstration and analysis of flight maneuvers. Includes preflight, ground operations, airport operations, takeoffs, climbs, flight fundamentals, stalls, spins, slow flight, basic instrument operations, performance maneuvers, ground reference maneuvers, emergency operations, approaches, landings, and post-flight procedures. Requires approximately 25 hours of flight that includes high performance operations at student's expense. Also requires	Prerequisites: A grade of C or better in AET240 or FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET227.		Occ	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			passing check ride similar to the FAA Certified Flight Instructor check ride.				
AET230HH	Certified Flight Instructor: Helicopter		Flight course in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor: Helicopter practical examination. Emphasis on demonstration and analysis of flight maneuvers. Includes preflight procedures, airport and heliport operations, hovering maneuvers, takeoffs, landings, and go-arounds, fundamentals of flight, performance maneuvers, emergency operations, special operations, and postflight procedures. Requires approximately 60 hours of flight at student's expense. Also requires passing check ride similar to the FAA Certified Flight Instructor check ride.	Prerequisites: FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET227HH.		Occ	LAB 1.0 3.0 3.0
AET237	Multiengine Airplane Pilot Ground School		Aeronautical knowledge necessary to meet requirements for a multiengine airplane rating including orientation, aerodynamics, airplane systems, airplane performance, flight planning, and emergency procedures.	Prerequisites: A grade of C or better in AET220 or FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET240.		Occ	LEC 2.0 2.0 2.0
AET239	Commercial Flight Lab IV		Final flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial operations. Student must fly approximately 20 hours	Prerequisites: A grade of C or better in (AET203 and AET222), or by permission of Instructor.		Occ	LAB 1.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			at their own expense. Maneuvers and procedures are designed to be performed without flight instructor guidance. Requires passing commercial pilot stage check similar to the FAA check ride.				
AET240	Multiengine Airplane Pilot Flight Lab		Flight course in preparation for the Federal Aviation Administration (FAA) Multi-engine Airplane practical examination. Approximately 18 hours of flight experience at the student's expense and passing check ride similar to the FAA Multi-engine check ride are required.	Prerequisites: A grade of C or better in AET239 or FAA Commercial Pilot Certificate with Single Engine Land and Instrument rating. Corequisites: AET237.		Occ	LAB 1.0 1.5 1.5
AET257	Readings in Aviation		Critical inquiry of a particular aviation theme from a wide variety of sources. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. International data communication facilities and equipment made available for student use.	Prerequisites: A grade of C or better in ENG102 or ENG111 and permission of Instructor.		Occ	L+L 3.0 4.0 4.0
AET258	Certified Flight Instructor: Instrument Airplane Ground School		Aeronautical knowledge and practical teaching ability necessary to obtain an Instrument Flight Instructor Certificate with an Airplane-Single-Engine rating and necessary to satisfactorily pass the Flight Instructor Instrument knowledge test.	Prerequisites: Valid FAA Commercial Pilot Certificate or Airline Transport Pilot Certificate with the appropriate category and class of airplane used in the course, instrument rating, and Flight		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Instructor Certificate-Airplane. Corequisites: AET270.			
AET270	Certified Flight Instructor: Instrument Airplane Flight Lab		Flight experience in an airplane to meet flight proficiency and aeronautical experience requirements necessary to add an Instrument Airplane Rating to an existing Flight Instructor-Airplane certificate.	Prerequisites: Valid FAA Commercial Pilot Certificate or Airline Transport Pilot Certificate with the appropriate category and class of airplane used in the course, instrument rating, and Flight Instructor Certificate-Airplane. Corequisites: AET258.		Occ	LAB 1.0 3.0 3.0
AET296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				students major or career interest or with permission of Instructor.			
AET296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
AET296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
AET296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AET298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
AET298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
AET298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
AFR110	Introduction to African-American Studies		Introduction to the study of the African-American experience. Interdisciplinary approach includes historical underpinnings; population and cultural characteristics; social, economic, and political issues; and implications for the future	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C]	Acad	LEC 3.0 3.0 3.0
AFR202	Ethnic Relations in the United States	ASB202 CCS202	Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
AFR203	African-American History: The Slavery Experience		History and cultural heritage of African-Americans, including arrival in the Americas, chattel slavery experience, emancipation, and participation in the American Civil War. Presented from an Afro-centric perspective.	Prerequisites: A grade of C or better in AFR110 or permission of Instructor.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Social-Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AFR204	African-American History 1865 to Present	HIS204	The multifaceted history and cultural heritage of African-American communities since the Civil War, presented within the broader context of U.S. history. This course explores the social, economic, political, and cultural history of African-American communities, including the historical and cultural impacts of slavery and discrimination, and the collective struggle for freedom, equality, and self-determination throughout U.S. history.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
AFR207	Black Women	WST207	Analysis and discussion of critical issues for Black women in America today	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
AGB130	Establishing and Running an Agribusiness		Basic principles used in establishing and running an Agribusiness. Emphasis on business requirements to maintain a business enterprise in Arizona	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AGB132	Agribusiness and Management		Application of management principle skills in day-to-day operations for decision-making techniques base on collection, use and analysis of financial, employee, and customer data to determine and evaluate the daily operations of an agribusiness venture.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AGB139	Agribusiness Computer Operations		Agribusiness operations for solving, forecasting and projecting agribusiness problems, agribusiness communications, accounting systems and database use.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
AGB140	Commercial Floral Design		Fundamentals of commercial floral design. Includes instruction and hands-on training in fresh, dried, and silk	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			plants, flowers, and greens; materials; supplies; gift items; and industry conditions, standards, and trends. Covers design principles, identification, selection, care, maintenance, handling, and use of floral design material, ordering, pricing, recordkeeping, computer usage, and customer relations.				
AGB142	Floriculture		Principles and species of floriculture. Includes instruction in cultural and production requirements of cut flowers and foliage. Covers general production information and basic plant physiology principles, propagation, production temperatures, plant nutrients, pest management, and greenhouse construction and operations.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
AGB144	Agriculture Processing		Agricultural processing and the meat industry as a business enterprise. Carcass evaluation, grading, judging for cut ability and quality, cut identification, meat cutting, wrapping, freezing, and storing.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
AGB229	Landscape Management and Leadership		Covers landscape and nursery management concepts and applications for business, industry, and government organizations	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AGB231	Marketing of Agricultural Products		Principles of agricultural marketing including consumer demand, economic system fundamentals, functions and methods of marketing agricultural commodities, market planning, and promoting and selling in the agricultural domain.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AGB260	Youth Leadership Development		Characteristics of effective Career and Technical Student Organization (CTSO) officers, leadership styles and strategies for the management and organization of youth groups in agriculture. Includes instruction and hands-on training in speech/workshop development, budget and activity planning and the use of parliamentary procedure.	Prerequisites: None.		Occ	L+L 4.0 6.0 6.0
AGB261	Advanced Youth Leadership Development		Characteristics of effective Career and Technical Student Organization (CTSO) officers, leadership styles and strategies for the management and organization of youth groups in agriculture. Includes instruction and hands-on training in speech/workshop development, budget and activity planning and the use of parliamentary procedure.	Prerequisites: None.		Occ	L+L 4.0 6.0 6.0
AGB290	Internship		Supervised field training for Agribusiness students with local industry businesses.	Prerequisites: Student shall be in final semester before graduation and permission of Department or Division.		Occ	LAB 3.0 6.0 6.0
AGB296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
AGB296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AGB296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
AGB296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites:		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
AGB298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
AGB298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AGB298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
AGL181	Landscape Construction Techniques		The methods used in site preparation, installation of edgings, construction of walks, patios and decks, installation of sprinkler systems, rock scapes and the planting of trees, shrubs, ground covers, and lawns.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
AGL184	Landscape Drafting and Design I		Basic principles of landscape design, including drafting and design techniques commonly used in the field of landscaping. Emphasis on simple working drawings and detailed views, symbols, lettering, and drafting standards.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
AGL188	Arizona Landscape Design		Designed for residential homeowner and beginning professional. Emphasis on plant material groupings and basic design principles. History of landscape use, special features of hardscapes, irrigation systems, and lawn-to-desert planting conversion techniques.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AGL189	Landscape Design I		Introduction to landscape design with an emphasis on residential and small scale projects. Application of design processes from inventory and analysis through design and development including program, measured base, study diagrams, rendered and colored plans, and sectional elevations. Architectural communication developed through hand sketch and hand drafting techniques with practice in client interview and design presentation.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
AGL190	Landscape Design II		Advanced study of the principles, processes, and practice of Landscape Design, with an emphasis on residential and small scale design. Design problem-solving, use of landscape elements such as paving, fencing, small structures, low voltage lighting, plants, water and fire features. Construction documents will be produced including plans, estimates, details, and specifications. Regulatory agencies and other affective influences will be explained. Development of personal design philosophy and career exploration.	Prerequisites: A grade of C or better in AGL189 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AGL269	Computer Aided Landscape Design	CAD269	Using AutoCAD to create landscape design drawings and wire frames in Sketchup for elevations, sections and perspective sketches.	Prerequisites: A grade of C or better in (AGB139 or CAD100 or CAD101) and AGL189 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AGL296WA	Cooperative Education		Work-college experiences that involve	Prerequisites: Completion		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
AGL296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
AGL296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
AGL296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
AGL298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
AGL298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
AGL298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
AGS164	Plant Growth and Development		Principles of growth in relation to seed germination, emergence, growth and reproduction processes of plants and the environmental influences on plant growth processes.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0
AGS165AA	Fall Sustainable Crop Production		Study of the importance of Fall-planted crops for food, feed, and fiber. Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability.	A grade of C or better required in all Prerequisites: Prerequisites or Corequisites: AGS164 or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AGS165AB	Spring Sustainable Crop Production		Study of the importance of Spring-planted crops for food, feed, and fiber.	A grade of C or better required in all		Occ	LEC 3.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability.	Prerequisites: Prerequisites or Corequisites: AGS164 or permission of Instructor.			LAB 0.0 3.0 3.0
AGS166	Aquaponics		Establishment, care, and selection of facilities for commercial production of animals and plants in a water-based closed system.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AGS168	Grounds Equipment Management		Selection, use and maintenance of grounds equipment, including both manual and power equipment.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
AGS170	Pesticides		Chemistry and classification of pesticides. Interpret the use of pesticide labels	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
AGS171	Insect Identification		Concepts of insect identification	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
AGS172	Household Pests		Problems associated with household pests	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
AGS173	Wood Destroying Pests		Problems associated with wood destroying pests	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
AGS174	Regulations: Federal and State		Federal and state pesticide regulations and guidelines for licensing pest control use	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
AGS175	Pesticide Safety and Use of Equipment		Federal and state pesticide safety regulations and use of equipment	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
AGS176	Environment and Toxicology of Pesticides		Environmental concepts, endangered species and toxicology associated with the use of pesticides	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
AGS177	Aquatic Pest Control		Aquatic ecosystems, pest organisms and their control	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
AGS178	General Pest Control		Arthropods and other pest organisms and their control	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
AGS179	Terrestrial Weed Control		Terrestrial weeds and their control	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
AGS182	Gardening Practices and Techniques		Cultural practices of vegetables, fruits and ornamental plants as	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			they relate to organic and inorganic gardening				
AGS182AA	Gardening Practices and Techniques		Cultural practices of vegetables, fruits and ornamental plants as they relate to organic and inorganic gardening.	Prerequisites: None.	AGS182AA may be repeated for credit.	Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0
AGS183	Urban Plant Identification and Use		Identification, growth, cultural requirements, uses, maintenance, and care of landscape trees, shrubs, vines and ground covers commonly used in Arizona	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AGS183AA	Urban Plant Identification and Use: Trees		Emphasis on trees commonly used in cityscapes in the Southwest. Review of their origin, cultural requirements, uses, required maintenance, benefits and disadvantages. Identification, planting procedures, water and nutritional requirements are covered	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AGS183AB	Urban Plant Identification and Use: Shrubs		Emphasis on shrubs commonly used in cityscapes in the Southwest. Review of their origin, cultural requirements, uses, required maintenance, benefits and disadvantages. Identification, planting procedures, water and nutritional requirements are covered	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AGS183AC	Urban Plant Identification and Use: Vines, Flowers, Groundcovers		Emphasis on groundcovers, annuals, perennials and vines commonly used in cityscapes in the Southwest. Review of their origin, cultural requirements, uses, required maintenance, benefits and disadvantages. Identification, planting procedures, water and nutritional requirements covered	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AGS186	Greenhouse Management and Construction		Principles and practices of greenhouse operation; control of environmental factors and cultural practices affecting the production of greenhouse crops	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AGS186AA	Greenhouse Management and Construction		Principles and practices of greenhouse operation; control of environmental factors and cultural practices affecting the production of greenhouse crops	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AGS187	Indoor Foliage Plants		Environmental and nutritional requirements for foliage plants used for interior decoration. Includes identification, nomenclature and uses	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AGS188	Arid Landscape Plants		Provides information on currently propagated Xerophytes available in southern Arizona. Shows how each can be applied to specific desert landscape situations. Considers identification, cultural requirements, and physical characteristics related to landscape design	Prerequisites: None.		Occ	LEC 3.0 6.0 5.1
AGS190	Arid Land Plants Identification and Use		Covers xerophytes common in southern Arizona and their applications to specific desert landscape situations. Identification, cultural requirements, and physical characteristics related to landscape design, including both mature plants and live containerized material	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AGS192	Urban Plant Care		Establishment, care and preservation of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AGS192AA	Urban Plant Care: Site Analysis, Plant		Establishment of ornamental trees, shrubs, vines, and	Prerequisites: None.		Occ	LEC 1.0 1.67 1.46

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Selection and Requirements		ground cover plants used in landscape for human well-being and pleasure				
AGS192AB	Urban Plant Care: Maintenance of Urban Plants		Care of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure	Prerequisites: None.		Occ	LEC 1.0 1.67 1.46
AGS192AC	Urban Plant Care: Diagnosing and Curing Plant Problems		Preservation of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure	Prerequisites: None.		Occ	LEC 1.0 1.67 1.46
AGS217	Introduction to Hydroponics and Controlled Environment Agriculture		Introduction to hydroponics and controlled environment agriculture. Includes a history of hydroponics and basic plant physiology and anatomy. Study of general cultural practices, plant protection, conventional and organic hydroponic production systems. pollination, fertilization and bee management. Provides an overview of plant nutrition and disorders, irrigation systems and nutrients transplant production. Covers greenhouse site selection, structures and control systems, fruit harvest; food handling, safety and marketing and economics of a hydroponic business.	Prerequisites: A grade of C or better in AGS164, or permission of Instructor.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0
AGS255	Plant Tissue Culture		Plant tissue culture techniques for cloning, reproduction, and manufacturing including media mixing, cell growth and development, aseptic transfer, manipulation, observation, and documentation	Prerequisites: A grade of C or better in AGS164.		Occ	L+L 3.0 5.0 5.0
AGS260	Soils		Fundamental properties of the physical, chemical, and biological	Prerequisites: A grade of C or better in	Course Attribute(s): General	Occ	LEC 4.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			relation of soil to plant growth. Evaluation of the human impact on soil health.	CHM130 or permission of Instructor.	Education Designation : Natural Sciences (Quantitativ e) - [SQ]		LAB 0.0 3.0 3.0
AGS261	Soil Fertility And Management		Relationship of soils, crops, and climatic factors to economic use of commercial fertilizer	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AGS262	Irrigation Design, Installation, Operation, and Trouble Shooting		Design, installation, maintenance and troubleshooting of sprinklers, drip, and flood systems. Use of time clocks, pumps, filters, backflow devices, and other equipment to deliver water to the landscape. Types of water and their use in the landscape.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AGS264	Irrigation and Water Management		Irrigation and drainage problems relating to pumps, motors, pipe lines, ditches and wells in the Southwest. Installation of sprinkler, drip and subirrigation, time clock installation and repair. Land measurement and principles of land leveling	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AGS265	Sustainable Crop Production		Study of the importance of crops for food, feed, and fiber. Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AGS164 or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AGS266	Urban Insect Control		The interrelationship of plant organisms, animals and environments with insects as affected by soils, temperature, water and agricultural chemicals	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AGS267	Weeds and Plant Diseases of Arizona		Weed identification, relationship to competition, cultural	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			practices, prevention and chemical usage for control. General outline of plant autonomy and physiology relating to chemical usage of selectivity. Diseases of plants, their life cycles, biological interrelationships, identification, and control.				
AGS268	Integrated Pest Management in the Cultivated Environment		Identification and management of pests of the garden, farm and landscape in the arid west. Special emphasis is given to safe handling of pesticides.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0
AGS282AA	Service-Learning Experience in Agriculture		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AGS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0
AGS282AB	Service-Learning Experience in Agriculture		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AGS282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0
AGS282AC	Service-Learning Experience in Agriculture		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AGS282AC may be repeated for a total of six (6) credit hours. Standard grading available	Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					according to procedures outlined in catalog.		
AGS284	Lawn and Turf Care		Factors that affect the establishment and maintenance of turf grasses. Includes budgets, schedules and selection of equipment	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AGS285	Propagation of Horticultural Plants		Principles and processes of propagation of crops using seed, budding, grafting, and cuttings in greenhouse structures and open ground	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AGS285AA	Propagation of Horticultural Plants Structures Media and Management		Design, maintenance and repair of greenhouse structures. Principles of plant propagation media and procedures. The processes involved in nursery management, including plant care, display, and marketing	Prerequisites: None.		Occ	LEC 1.0 0.67 0.67 LAB 0.0 1.0 1.0
AGS290	Internship		Supervised field training for Urban Horticulture students with local industry businesses.	Prerequisites: Student shall be in final semester before graduation and permission of Department or Division.		Occ	LAB 3.0 6.0 0.0
AGS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
AGS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
AGS296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
AGS296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students major or career interest or with permission of Instructor.			
AGS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
AGS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
AGS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
AHU245	Arabic Culture and Islam		A survey of Arab heritage in the Arab world (Middle East). Cultural and social institutions and their contribution to the development of the region and its heritage.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
AIM100	Introduction to Artificial Intelligence		Basic concepts and applications of artificial intelligence (AI), including AI project cycles. Focus on issues surrounding AI including ethics, bias, culture, regulations, and professional expectations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AIM110	Introduction to Machine Learning		Introduction to machine learning concepts and Python applications, including data acquisition, supervised and unsupervised learning, and data modeling.	Prerequisites: A grade of C or better in AIM100, CIS156 and MAT206.		Occ	L+L 3.0 4.0 4.0
AIM210	Natural Language Processing		Fundamental concepts in Natural Language Processing (NLP) and text processing. Focus on knowledge and skills necessary to create a	Prerequisites: A grade of C or better in AIM110.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			language recognition application.				
AIM220	Artificial Intelligence for Computer Vision		Understand and apply the basic techniques to process images using OpenCV and Python libraries.	Prerequisites: A grade of C or better in AIM110.		Occ	L+L 3.0 4.0 4.0
AIM230	Artificial Intelligence for Business Solutions		Fundamentals of artificial intelligence (AI) and machine learning to support business solutions.	Prerequisites: A grade of C or better in AIM210 and AIM220.		Occ	L+L 3.0 4.0 4.0
AIM240	Artificial Intelligence Capstone Project		Focus on how a social issue is explored, brought through the Artificial Intelligence (AI) Project cycle, and delivered as a solution using the different domains of AI, including computer vision and natural language processing.	Prerequisites: A grade of C or better in AIM210 and AIM220.		Occ	L+L 3.0 4.0 4.0
AIR160	Reservation/Booking Procedures		Overview of reservation/booking procedures. Includes use of availability displays, seating assignments, booking procedures, and fare rules as well as fare pricing and selling. Communication skills also covered.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AIR161	Airline Reservations Systems		Practical application of a travel booking procedures using a computerized reservations system. Covers codes, Passenger Name Record, booking, and reservations.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AIR160 or permission of Instructor.		Occ	L+L 2.0 3.0 3.0
AIR163	Advanced Airline Reservations		Rules, restrictions, and procedures for handling special reservations situations and managing codeshare accounts and award plans. Also includes international travel procedures and partner carriers.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AIR160 or permission of Instructor.		Occ	L+L 2.0 3.0 3.0
AIR165	Overview of Flight Schedules/Itineraries		Basic reservation information including	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			flight schedules, itineraries, and fares. Handling travel agent calls also covered.				
AIR170	International Air Transport Association Geography		Overview of world geography according to the International Air Transport Association (IATA). Includes world traffic area divisions, sub areas and office responsibilities. Also covers atlas reading including location of countries, major cities and grids in addition to use of city codes.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AIR171	International Air Transport		International air reservations procedures. Includes Passenger Name Record (PNR) creation and modification as well as use of availability displays and international itineraries. Covers preferred programs and partnerships.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AIR172	International Fares		Overview of international fares. Includes fare basis codes, combinability and construction. Also covers transpacific routing and electronic tickets as well as procedures for completing international reissues.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AIR173	International Air Transport Lab		Practical application of international air reservations procedures. Includes Passenger Name Record (PNR) creation and modification as well as use of availability displays and international itineraries.	Prerequisites: None.		Occ	LAB 2.0 6.0 6.0
AIS101	Survey of American Indian Issues		Introduction to critical issues related to American Indian peoples. Examines cultural, political, economic, educational, social, and environmental issues. Focuses on contemporary issues	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and factors influencing American Indian communities.		: Social and Behavioral Sciences - [SB]		
AIS103	Introduction to Indigenous Cultures		Introduction to political, economic and social structures of indigenous peoples. Examines the impact on indigenous peoples of contact with non-indigenous cultures.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
AIS105	Introduction to American Indian Studies	SOC105	Introduction to political, economic, and social structures of American Indian Nations. Provides overview of American Indian tribal cultures prior to contact, the impact of European contact, and the influence of western social systems on tribal nations.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
AIS110	Navajo Government		Addresses and examines major historical developments of the Navajo People with a focus on government, law, society, livelihood, tradition, and culture. Includes the major components and operation of Navajo government and related tribal laws, such as Title II and Title VII of the Navajo Nation Code, as well as the significance of the Treaty of 1868. Federal Indian policies and their impact on Navajo society and government, the importance of federal and tribal citizenship and related federal and tribal laws, and the role of the Navajo clanship system and other relevant cultural concepts addressed	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H]	Acad	LEC 3.0 3.0 3.0
AIS112	American Indian Policy	SOC112	Reviews United States government policies and their impact on American Indian sovereignty.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Examines historic, legal, economic, and social issues regarding Indian policies and how they impact Indian Nations and individual Indians. Studies historical as well as contemporary policies created by the Federal Government that define the trust relationship between the United States government and Indian Nations				
AIS113	Proposal Writing		Provides an overview of funding sources for grants. Reviews techniques and skills necessary to develop successful proposals. Focuses on the design and writing of a complete grant proposal related to a selected problem or issue.	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0
AIS140	American Indian History	HIS140	Survey of American Indian history with emphasis on the last 200 years. Focuses on cultural, economic, political and social continuity and changes. Topics include how federal policies impacted and were shaped by Indigenous peoples and how Indigenous individuals, communities, and nations have maintained cultural identity and sovereignty.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
AIS141	Sovereign Indian Nations	SOC141	Explores the sovereign status of American Indians as it relates to social relationships, traditions, and culture of American Indians. Reviews historic relations with non-Indian societies, the development of federal Indian law, tribal governments and their functions. Examines treaty rights, environmental issues,	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H] General Education	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			public policy, economic development, other current issues, and contemporary social problems		Designation : Social and Behavioral Sciences - [SB]		
AIS160	American Indian Law	SOC160	Analyzes the legal system of the United States Government as it applies to American Indian Nations. Examines how United States legal institutions have impacted Indian sovereignty. Units of analysis include the development of Indian law, United States Supreme Court decisions, Congressional Acts, treaty rights and the development of tribal governments. Focuses on legal institutions that have abridged the property rights of Indian Nations.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H]	Acad	LEC 3.0 3.0 3.0
AIS170	American Indian History of the Southwest	HIS170	Covers history of American Indian Peoples of the Southwestern United States from pre-European contact era to the present. Includes historical events, the development and implementation of non-Indigenous policies and their impact on American Indian Peoples in these areas, and contemporary issues of importance.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
AIS201	Indigenous Nation Building		Discussion of the relationship between general management issues and their specific application to tribal government situations. Special consideration given to application of management theory and to the unique status and situation of tribal governments.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
AIS203	Fundamentals of Economic Development for Indigenous Nations		Provides a practical understanding of the economic development process. Examines ways	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			in which development can be initiated and financed. Focuses on how budget systems can be used as management tools. Reviews fundamentals of proposal writing and budget management for grants.				
AIS213	American Indian Religions	REL203	An examination of the historical and cultural background of diverse lifeways and worldviews belonging to the peoples indigenous to the North American continent over time, including a study of modern day American Indian beliefs and practices.	Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
AIS261	Indigenous Women's Literature of the Americas	ENH/WST 261	Explores contemporary voices of Indigenous women authors and artists in the Americas as expressed in poetry, fiction, nonfiction, drama, and oral traditions. Focuses on themes relevant to Indigenous women and examines the trends and movements within Indigenous peoples and women's literary history. Examines themes relevant to Indigenous women such as racial and gender oppression, reservation life, acculturation, and their sociopolitical activism in the Americas.	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0
AIS282AA	Volunteerism for Indigenous Studies		Service-learning field experience within private/public agencies,	Prerequisites: Permission of Instructor.	AIS282AA may be repeated for	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			educational institutions, and citizen volunteer groups.		a total of six (6) credit hours.		
AIS282AB	Volunteerism for Indigenous Studies		Service-learning field experience within private/public agencies, educational institutions, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	AIS282AB may be repeated for a total of six (6) credit hours.	Acad	LAB 2.0 2.0 0.0
AIS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
AIS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the Instructor.			
AIS296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of the Instructor.			
AIS296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0
AIS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE				
AIS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
AIS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
AIT100	Industrial Safety		Introductory course in workplace safety training, including an overview of critical safety policies, procedures, and practices that help prevent injuries and keep the workplace safe and productive.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AIT101	Introduction to Industrial Automation		Introductory course in manufacturing automation systems and	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technologies. Includes safety practices, quality measurement, print reading, machine operation, hand tool usage, and maintenance operations.				LAB 0.0 2.0 2.0
AIT105	Modern Maintenance Operations		Introductory course into the practice of modern maintenance operations. Includes: safely and correctly using maintenance tools (e.g., hand tools, power tools), measuring instrumentations (e.g., tape, caliper, micrometer) and reading various engineering documents (e.g., blueprints, flowcharts, parts diagrams). Use and convert units in System International (SI) and imperial. Basic discussion of industrial safety procedures, machine operations, troubleshooting, failure analysis, modern maintenance principles, rigging, workplace organization, and records keeping.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AIT110	Mechanical Power Transmission Systems		Introductory course in how to transmit, measure, calculate, and work safely with rotational mechanical equipment. Hands-on assembly, alignment, maintenance, and troubleshooting of mechanical power transmission systems and components e.g., belts, bearings, chains, dynamometers, gears, pulleys, couplings, bushings, and sprockets. Introduction to lubricant and grease types, their standards, safety, and application.	Prerequisite: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AIT115	Hydraulic Systems		Introductory course in the principles of	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			hydraulic system operation, components construction, maintenance, troubleshooting, and operation, as well as the role of the individual components in an operating hydraulic system. Includes hydraulic fitting and seals, accumulators, cylinders, directional control valves (DVC), relief valves, check valves, pumps, filters, hoses, and a variety of hydraulic control circuits.				LAB 0.0 3.0 3.0
AIT120	Pneumatic Systems		Introductory course in the principles of pneumatic system operation, components construction, maintenance, troubleshooting, and operation, as well as the role of the individual components of an operating pneumatic system. Includes pneumatic fitting, seals, accumulators, actuator/cylinders, Directional Control Valves (DCV), manifolds, relief valves, check valves, pumps, filters, regulators, dryers, and common pneumatic control circuits.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AIT123	J-STD Soldering Certification		This course will prepare the successful student to receive the "Certified IPC Specialist" (CIS) certification from The Institute for Interconnecting and Packaging Electronic Circuits (IPC) in "Requirements for Soldered Electrical and Electronic Assemblies" (IPC J-STD-001). Topics covered and skills to be demonstrated are: soldered wires and	Prerequisites: Permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			terminals, through hole connections, surface mount components, and inspection. Certification is verified by a certified IPC trainer (CIT).				
AIT124	Composites		Basic composite materials, construction, and repair. Manufacturing methods and equipment. Assessment and repair of composite structures using vacuum bagging and other approved procedures. Corrosion control, electrical bonding, materials substitutions, machining of composite components, mold fabrication. Hot bond repair of composite components including complex shapes and varied materials.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
AIT125	DC and AC Components and Circuits		An introductory course in Alternating Current (AC) and Direct Current (DC) electric theory. Includes electric circuits using resistors, capacitors and inductors. Also includes solenoids, relays, transformers, basic DC and AC motors, circuit protection devices and a variety of switches.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AIT128	A-620 Cable and Wire Harness Assembly Certification		This course will prepare the successful student to receive the "Certified IPC Specialist" (CIS) certification from The Institute for Interconnecting and Packaging Electronic Circuits (IPC)/Wire Harness Manufacturer's Association (WHMA) in "Requirements and Acceptance for Cable and Wire Harness Assemblies" (IPC/WHMA-A-620 Certification). Topics covered and skills to be	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			demonstrated are: soldered terminations, crimp terminations, insulation displacement terminations (IDC), splices, connectorization, marking/labeling, coaxial cable assemblies, electrical shielding, wire marking and labeling, and testing methodologies. Certification is verified by a certified IPC trainer (CIT).				
AIT130	Maintenance Piping		Overview of the area of maintenance of piping systems for manufacturing or industrial facilities. Preparation to sit for the NIMS Duty Area 9: Maintenance Piping Certification Exam.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AIT132	Industrial Technology for the Semiconductor Industry		Introduction to semiconductor manufacturing concepts, processes, and hands-on application. Includes electrical theory, circuits, schematics, hand tools, safety, clean room protocols, model based problem solving, lean manufacturing, vacuum technology, and troubleshooting.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
AIT205	Power Electronics and Variable Frequency Drives		Introductory course in AC and DC power electronic theory. Includes power supplies, power conditioning, solid-state power devices, and power control circuits. Also includes proximity sensors, analog thermal sensors, control feedback loops, and the setup and operation of Variable Frequency Drives (VFDs).	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AIT210	Programmable Logic Controller		Introductory course in Programmable Logic Controller (PLC) Ladder	Prerequisites: A grade of C or better in		Occ	LEC 3.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Programming and Troubleshooting		Logic programming and troubleshooting PLC connected components and systems. Also includes basic Human Machine Interface (HMI) navigation, connecting to a PLC, and program downloading.	AIT125, or permission of Instructor.			LAB 0.0 3.0 3.0
AIT215	Process Control Systems		Introductory course in Process Control Systems design, operation, and tuning of Proportional, Integral, Derivative (PID) controllers for regulating flow, temperature, pressure, and level of industrial process variables. Includes manual control, feedback control, automated controls, analysis process setup, operate, and troubleshooting processes of control systems. Also includes typical Pipe and Instrument Diagram (P&IDs) symbols and tags along with the development of a basic P&ID drawing.	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0
AIT225	Industrial Motors and Motor Control		An introductory course in DC, single-phase AC, and 3-phase AC electric motors and motor control circuits. Includes electric motor control circuit components, motor control circuit applications, sequence circuits, and timer circuits.	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AIT250	Automated Industrial Technology Capstone		An examination of the integration of mechanical, hydraulic, pneumatic, electrical, piping, electronic control, and process control systems. Experience in designing, building, maintaining, troubleshooting, and	Prerequisites: A grade of C or better in AIT225, or permission of Instructor or Corequisites: AIT225.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			repairing such integrated systems will be gained.				
AIT270	Robotics I		Fundamental principles of working safely with robots, and applications and trends in industrial robotics. Includes types of robots, axes and coordinate systems, programming and operating robots. Incorporates end effectors and collaborative robots.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AIT100 or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 2.0 2.0
AIT275	Robotics II		Intermediate principles of working safely with robots; robot auxiliary, subsystems, and components. Includes robot maintenance, troubleshooting and repair. Integrates a basic robot design project.	Prerequisites: A grade of C or better in AIT270.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 2.0 2.0
AIT276	Robotics Operations and Programming		This course is intended for an operator, technician, or programmer who must setup, record and/or troubleshoot programs on a Handling Tool software package. The course covers the Robot Operations intermixed with the tasks required to set up the Handling Tool application, test run, and refine the program and production setup.	Prerequisites: A grade of C or better in (ATP190, ATP201, and ATP205) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AIT280	Industry 4.0 and Industrial Control Systems		Introductory course in Industry 4.0, physical processes within factories, and the virtualization techniques and intelligent decision making capabilities. Includes Cyber-Physical Systems (CPS), Supervisory Control and Data Acquisition (SCADA), Distributed Control Systems (DCS), Smart Factories, lean manufacturing, and the Internet of Things (IOT). Also includes an	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			introduction and setup of SCADA software.				
AIT285	Sensors and Data Acquisition		Introductory course in sensors and data acquisition. Includes sensor types, function, installation, adjustment, and maintenance. Also includes a brief overview of sensor signal conditioning, data acquisition configuration, chart recorder operation, and data storage.	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
AIT291	Automated Industrial Technology Internship		Supervised work experience in production environments. Includes experiences in maintenance, troubleshooting, repair of production environment and specific manufacturing processes. Also includes experiences in problem solving; working as a team; soft skills; time and resource management; and exposure to specific manufacturing processes.	Prerequisites: A grade of C or better in AIT225, or permission of Instructor or Corequisites: AIT225.		Occ	LAB 3.0 6.0 0.0
AIT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
AIT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
AIT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
AJS100	Police Academy Preparation		Preparation for individuals entering a police academy as well for those who are in the beginning stages of preparing for a career in law enforcement. Includes principles of policing and job responsibilities. Covers expectations of recruits in the areas of academics, physical fitness, mental and emotional preparation. Emphasis on professional and ethical behavior.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
AJS101	Introduction to Criminal Justice		An introduction to crime and society's responses to it. Examines the nature and causes of crime, the criminal law,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			constitutional safeguards, and the organization and operation of the criminal justice system including the police, courts, jails, prisons, probation and parole departments, and community corrections agencies. Covers the history of the criminal justice system, terminology and career opportunities.				
AJS107	Patrol Procedures		Specialized areas of the patrol function, including responding to crowds, riots, bomb threats, intoxication, hazardous materials, fires, and domestic disputes. Partially fulfills Arizona POST (Peace Officer Standards and Training) requirements for proficiency skills academy attendance	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS109	Substantive Criminal Law		Covers philosophy of legal sanctions and historical development from the common law to modern American criminal law, classifications of crimes, elements of and parties to crimes, general definition of crimes, common defenses utilized. Includes specific offenses and the essential elements of each offense.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS110	Law and Legal Review I		In-depth study of the Arizona laws governing arrest by peace officers, as well as, an intensive study of the Arizona substantive criminal law code (ARS Title 13). Focuses on specific sections of ARS Title 4 and ARS Title 8, as they apply to peace officers in Arizona. Partially fulfills the Arizona POST (Peace Officer Standard	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and Training) Board requirements for Proficiency Skills Academy attendance				
AJS112	Wellness for Law Enforcement Officers		The value of physical fitness in law enforcement and the basic elements of strength training, aerobic conditioning, flexibility, nutrition, and back injury prevention	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
AJS113	Criminal Justice Crime Control Policies and Practices		Focus on changing the distribution of crime opportunities rather than offender motivation. Topics include application of situational crime prevention strategies, problem-oriented crime control approaches, hot spots policing, and crime prevention through environmental design.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS115	Community Emergency Response Team (CERT): Level I	FSC115	Basic skills, including instruction in teamwork and disaster simulations, needed to help oneself, family, and neighbors in the event of a community disaster in accordance with the Federal Emergency Management Agency (FEMA) guidelines.	Prerequisites: None.		Occ	LEC 1.5 1.5 1.5
AJS116	Crime Prevention		Examines the principles and skills associated with crime prevention. Analyzes the appropriate techniques and strategies police agencies use to operate crime prevention programs.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS119	Computer Applications in Justice Studies		Provides literacy in microcomputer applications in major areas of the criminal justice system. Examines availability and uses of current software packages in criminal justice work. Provides hands-on experience with	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			appropriate integrated software packages pertaining to justice studies.				
AJS123	Ethics and the Administration of Justice		Introduces and explores ethical issues and the justice system. Focuses on ethics and the law, the police, courts and corrections. Reviews ethical theory, concepts and practices as they relate to administration of justice. Explores issues of how media/social media shape ethics. Encourages critical thinking and value decision making in criminal justice system situations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS124	Correctional Institutions		An examination of correctional institutions with an emphasis on personnel and security measures, care and treatment programs and institutional planning. The criminal justice system and matters of custody and treatment. Inmate subcultures, and organized crime in correctional institutions and jails	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS131	Police Management Techniques I		Police supervisory techniques for planning, organization, coordination, reporting, budgeting and handling related personnel problems	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS132	Police Management Techniques II		Management of police personnel including selections procedures, disciplinary practices, public relations, elements of supervision, service ratings, recruiting and probation, and related personnel problems	Prerequisites: A grade of C or better in AJS131 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
AJS137	Public Safety Dispatcher: Basic		Designed to provide in-depth orientation and standardized training of	Prerequisites: None.		Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			public safety dispatchers within the law enforcement community and familiarize the student with the skills and information important to functioning in a competent, ethical, and professional manner.				
AJS139	Emergency Response to Terrorism	FSC139	Fundamentals of emergency response to suspected terrorist events. Historical perspective of terrorist activities and methods by which responders can identify and protect themselves and the public from these threats. Coordination of responding agencies.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS140AA	Patrol Rifle Concepts		Pre-law enforcement employment course relating to how rifles are used in the patrol function	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS145	Criminal Justice System Experiences		Examines the purpose, organization, operation, and employment opportunities of various criminal justice agencies including police departments, crime labs, morgues, courts, juvenile detention facilities, jails, prisons, parole boards, and halfway houses. Includes tours of a variety of criminal justice facilities	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
AJS146	Disaster Recovery Operations	FSC146	Specialized knowledge and skills for the emergency manager in developing programs and activities associated with disaster recovery assistance and mitigation actions that reduce losses from future disasters.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS147	Emergency Preparedness	FSC147	Emergency preparedness related to natural and manmade disasters. Planning concepts and the	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			planning process; awareness and education programs and strategies for the general community as well as business and industries.				
AJS148	Fundamentals of Emergency Management	FSC148	Emergency management systems including career opportunities, function, tasks and responsibilities of the emergency management program manager, role of the emergency manager in mitigation, preparedness, response, and recovery. Past civil defense and current emergency management systems since evolution from World War II.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS149	Hazard Mitigation	FSC149	Knowledge and skills required to develop programs to reduce losses from future disasters, emergencies, and other extreme events caused by natural and man-made hazards.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS150	Defensive Tactics		Skills in the protection against persons armed with dangerous and deadly weapons, demonstration and drill in a limited number of holds and come-alongs, and restraint of prisoners and the mentally ill.	Prerequisites: None.	AJS150 may be repeated for a total of three (3) credit hours	Occ	LEC 1.0 1.0 1.0
AJS151	Firearms I		Moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms, and the firing of sidearms.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
AJS152	First Aid		Methods for providing emergency medical care to victims of accidents or illness and related safeguards. Includes legal and civil issues, basic functions and major organs of the human body, injury management,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			resuscitation, movement and extrication of victims				
AJS153	Firearms II/Handguns		Advanced familiarization with handguns. Variations of basic shooting stance. Legal and moral repercussions of self-defense. Includes range practice.	Prerequisites: A grade of C or better in AJS151 or equivalent certified firearms training as reviewed by the Department.		Occ	L+L 1.0 1.0 1.0
AJS154	Firearms III/Long Weapons		Familiarization with different types of long weapons and associated ammunition. Emphasis on safety techniques for use and storage of weapons. Limited use of range for practice	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
AJS155	Concealed Weapons Carry		Training in safe handling and use of handguns. Examines legal provisions related to carrying a concealed weapon; legal and moral implications of self-defense	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0
AJS156	Home and Vehicle Personal Defense		Development of personal safety plans, confrontation avoidance, and effective self-defense tactics. Legal and safe use of firearms. Includes range practice	Prerequisites: A grade of C or better in AJS151 or permission of Instructor.		Occ	L+L 1.0 1.0 1.0
AJS162	Domestic Violence		Explores domestic violence as a social problem within the United States from historical, cultural, political, legal, and law enforcement perspectives. Provides an overview of theories, definitions and causes of, and interventions for domestic violence involving spousal, elder and child abuse along with teen dating violence. Examines the dynamics and effects of domestic violence. Addresses research issues and	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			contemporary domestic violence policy				
AJS170	Fire and Arson Investigation for Law Enforcement		An examination of fire and arson investigative techniques along with the motives and pathology of the arsonist and the chemistry of fire. Other topics include documenting the scene, evidence, eliminating accidental causes and surveillance.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS191	Hate Crimes		Explores the causes, incidence rates and forms of hate crimes in the United States and other countries. Studies hate crime laws and the Constitution. Examines the impact of hate crimes on society, culture and the law. Considers societal responses to combat and prevent hate crimes	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS192	Serial Killers and Mass Murderers		The study of serial killers, mass murderers and their victims. Examines the history and frequency of these crimes, profiles the killers and their victims, explores theories of causation, and discusses the problems and techniques of investigation, prosecution, punishment, and prevention	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS195	International and Domestic Terrorism		An overview of the history, structure, goals, and activities of domestic and international terrorist groups. Explores theories explaining terrorism and reviews methods used to combat it	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS198AB	Special Topics in the Administration of Justice		Explores special topics related to the administration of justice with an emphasis on current issues.	Prerequisites: None.	AJS198AB may be repeated for a total of nine (9)	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					credit hours.		
AJS198AF	Special Topics in the Administration of Justice		Explores special topics related to the administration of justice with an emphasis on current issues.	Prerequisites: None.	AJS198AF may be repeated for a total of nine (9) credit hours.	Occ	LEC 3.0 3.0 3.0
AJS200	Current Issues in Criminal Justice		Examines current issues, techniques and trends in the Criminal Justice System.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS201	Rules of Evidence		A practical insight into the rules of evidence to include how to recognize evidence: the general rules governing admissibility of evidence; the hearsay rule and its exceptions; the use of documentary evidence, written memoranda, photographs, recordings and electronic surveillance; corpus delicti; opinion evidence, circumstantial evidence, evidential privileges.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS205	Effective Communication and Report Writing in Criminal Justice		Overview of effective communication for criminal justice agencies. Covers the communication process and flow. Written communication emphasized with report writing, including characteristics of reports and field notes, and the importance and uses of each. Form, style, and procedures for writing various reports, including elements of composition, required substance, proper and improper conclusions, and descriptions of persons and property.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS210	Constitutional Law		An examination of the U.S. Constitution as it relates to the law enforcement function. Includes statutory law and judicial decisions	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			governing the areas of arrest, search and seizure, interrogations and confessions, self-incrimination and other constitutional guarantees. Required in AJS curriculum				
AJS211	Police Planning		An analysis of the process of planning, and a descriptive study of logical and systematic approaches to strategic, short-range, operational, organizational and tactical planning within a law enforcement organization	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS212	Juvenile Justice Procedures		Examines the nature and extent of juvenile delinquency to the present. Including but not limited to the history, jurisdictions, terminology, procedures, and institutions of the juvenile justice system.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS213	Evidence Technology: Fingerprints		Covers the fundamental principles of fingerprints, including the history of fingerprint classification, the biology of friction ridge skin, pattern analysis, comparison, and identification as well as their application in significant court cases. Also includes techniques for obtaining inked prints and developing and preserving latent prints.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS213AB	Fingerprint Classification I		Identification of typelines, deltas, and cores. Rules for classification of loops, whorls, and arches.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS214	Evidence Technology/Photography		The use of photography and other aids in identification and preservation of evidence such as fingerprints, footprints and impressions. Techniques in crime scene and traffic accident photography	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AJS215	Criminalistics: Physical Evidence		The scientific analysis and examination of physical evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Topics include fingerprints, shoe prints, tool marks, firearms identification, paint chips and arson	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS216	Criminalistics: Biological Evidence		The scientific analysis and examination of biological evidence with emphasis on collection and preservation of evidence. Topics discussed include blood, drugs, blood alcohol, hairs and fibers, and topics of special interest in criminalistics	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS217	Court Procedures		Study of procedures practiced by courts of general and original jurisdiction. Extensive use of mock and moot trial methods used to prepare students in legal research, case preparation and presentation, and adversary hearings.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
AJS218	Special Investigations: Drugs		Advanced course in the specialized investigation area of drug enforcement. Emphasis on the pharmacological propertiew of abused drugs, field testing, evidence requirements and specialized investigation techniques utilized in narcotic and dangerous drug investigations	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS219	Crime Scene Technology: Physical Evidence		Scientific analysis and examination of physical evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Fingerprints, shoe prints, tool marks,	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			firearms identification, paint chips and arson				
AJS220	Transnational Organized Crime		The study of organized crime on a domestic and global scale. Examines the history, structure, and activities of domestic and transnational organized crime groups. Explores domestic and global responses to transnational organized crime, along with accompanying challenges and future implications.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS223	Forensic Pathology: Death Investigation		An examination of the medical investigation of sudden, unnatural, unexplained or violent deaths. Explains the legal and medical roles of death investigators and medical examiners. Additional topics include the autopsy, documenting and evaluating the body, routine and special investigative techniques, and death event reconstruction.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS225	Criminology		Study of deviance, society's role in defining behavior; theories of criminality and the economic, social, and psychological impact of crime; relationships between statistics and crime trends. Examines crime victimization and the various types of crime and categories of offenders. Required in the AJS curriculum.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS230	The Police Function		Theories of procedures and methods of operations of public police with emphasis on discretionary powers available to the working police officer. Career opportunities and current	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			trends in law enforcement presented				
AJS240	The Correction Function		Examines the history and development of correctional theories and institutions.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS241	Police Photography		Emphasis on proper procedure for photographing crime scenes, accident scenes, and laboratory specimens. Discussion of photographic techniques, equipment, lighting techniques, aerial photography, video and motion pictures, macro and micro photography, filters, and preparation for court presentation using selected simulations	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS243	Crime Scene Reconstruction		Examines techniques used to reconstruct the physical actions that occurred at a crime or accident scene. Involves the use of physical, testimonial, and documentary evidence, knowledge of criminal modus operandi and the scientific method, including deductive and inductive logic. Includes analysis of case studies.	Prerequisites: A grade of C or better in AJS215 or AJS216 or AJS219 or AJS275 or FOR105 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
AJS255	The Criminal Justice System Handling of the Mentally Ill		An introduction to methods police, court and correctional personnel employ specific to the mentally ill. Covers various types of mental illnesses, police emergency responses, how criminal and civil courts deal with the mentally ill, diversion programs and the correctional response both within the community and under confinement.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS256	Law Enforcement Firearm Instructor	LET256	A train the trainer course for police firearm instructors. Covers	Prerequisites: AzPost (Peace	AJS/LET256 may be	Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			instructional techniques for the pistol, revolver, and shotgun.	Officer Standard and Training) Certified Police General Instructor or permission of Department or Division.	repeated for Credit.		
AJS256AA	Law Enforcement Patrol Rifle Instructor	LET256A A	Techniques on proper manipulation and marksmanship skills needed by a patrol officer/deputy in the use of the patrol rifle, and techniques of teaching those skills to other officers/deputies.	Prerequisites: AzPOST (Peace Officer Standard and Training) certified law enforcement firearms instructor or permission of Instructor.	AJS/LET25 6AA may be repeated for Credit.	Occ	LEC 3.0 3.0 3.0
AJS258	Victimology and Crisis Management in Public Safety	EMT/FSC 258	Victimology, the criminal justice system, techniques of crisis intervention and management, and the importance of a multicultural and global perspective. Includes violent crimes, sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, developing effective coping skills of victims and responders, appropriate community resources, and the cultural responsiveness of the justice system.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS260	Procedural Criminal Law		Concerned with the understanding of procedural criminal law. Examines the processes and procedures followed by law enforcement, attorneys, and the courts in the apprehension and prosecution of criminal offenders. Examines the rationale underlying major court holdings impacting the criminal justice process, the	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			procedural requirements that stem from these holdings and their effect on the daily operations of the criminal justice system.				
AJS269AA	Internship		Supervised field training for preservice administration of justice students. Maximum of three (3) credit hours allowed in program.	Prerequisites: Student sponsored by governmental enforcement agency and permission of Department or Division.		Occ	LAB 1.0 5.0 0.0
AJS269AB	Internship		Supervised field training for preservice administration of justice students. Maximum of three (3) credit hours allowed in program.	Prerequisites: Student sponsored by governmental enforcement agency and permission of Department or Division.		Occ	LAB 2.0 10.0 0.0
AJS269AC	Internship		Supervised field training for preservice administration of justice students. Maximum of three (3) credit hours allowed in program.	Prerequisites: Student sponsored by governmental enforcement agency and permission of Department or Division.		Occ	LAB 3.0 15.0 0.0
AJS270	Community Relations		Examination, recognition and understanding of community problems; community action programs; methods of coping with human behavior, victimology, conflict and communication; ethnic and minority cultures and environments; the community and relationships with the criminal justice system	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Occ	LEC 3.0 3.0 3.0
AJS275	Criminal Investigation I		Introduction to the theory of criminal investigation. Examines crime scene procedures, case preparation, interviewing, and basic investigative techniques	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AJS276	Terrorism Liaison	FSC276	Provides knowledge and skills required for the	Prerequisites: Permission of	AJS/FSC276 is not	Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Terrorism Liaison Officer (TLO) role to coordinate and communicate with various fire, police, and military agencies in managing threat vulnerability and other emergency disasters.	Program Director.	open to the public.		
AJS277	Threat Vulnerability Assessment	FSC277	Provides a historical perspective of threats and the activities and methods used by first responders to identify and mitigate future threats. Introduces and examines threat vulnerability of critical infrastructure within jurisdictions. Provides assessment techniques for responding agencies.	Prerequisites: Permission of Program Director.	AJS/FSC277 is not open to the public.	Occ	L+L 1.0 1.0 1.0
AJS278	Hostile Intent and Intervention Training	FSC278	Provides knowledge and skills required to detect and anticipate terrorist activities as a member of a Hostile Intent and Intervention Team (HIIT).	Prerequisites: Permission of Program Director.	AJS/FSC278 is not open to the public.	Occ	L+L 2.0 2.0 2.0
AJS279	Field Intelligence Team Training	FSC279	Provides knowledge and skills required for situational awareness of suspicious activities and the deployment of first responders for mitigation and investigation for the Field Intelligence Team (FIT).	Prerequisites: Permission of Program Director.	AJS/FSC279 is not open to the public.	Occ	L+L 3.0 3.0 3.0
AJS280	Terrorism Hazmat First Responder Training	FSC280	Provides knowledge and skills to understand the chemistry of reactive and unstable hazardous materials, the toxicology of dangerous chemicals, and the measures taken to protect the safety of responders, the community, and the environment of chemical accidents. Also includes an introduction to field sampling of unknown substances for the Field Intelligence Team (FIT) and the Hostile Intent and Intervention Team (HIIT).	Prerequisites: Permission of Program Director.	AJS/FSC280 is not open to the public.	Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AJS282AA	Service-Learning Experience in Adminstration of Justice Studies		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AJS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0
AJS282AB	Service-Learning Experience in Adminstration of Justice Studies		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AJS282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0
AJS282AC	Service-Learning Experience in Adminstration of Justice Studies		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AJS282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 3.0 3.0 0.0
AJS290AH	Use of Force		Examines issues related to the use of force by and against police officers. Explores police use of force decision-making options. Reviews recent changes in Arizona law relative to police officers	Prerequisites: Permission of Department or Division.		Occ	L+L 0.5 0.5 0.5
AJS290AI	Theories of Criminal Behavior		Theories of human behavior and crime. Biological, sociological, and psychological approaches to the	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			theories of criminal behavior				
AJS290AU	Child Abuse Investigation		Definition and investigation of the causes and effects of child abuse	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS290AW	Narcotics and Dangerous Drugs		Pharmacological effects of the use and abuse of drugs, including a description of common abuse patterns and investigative techniques used in the enforcement of drug laws	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS290AZ	Police Interrogation Techniques		Proper interview and interrogation techniques, including a discussion of the constitutional rights of the defendant and applicable court decisions	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS290BB	Police Report Writing		Writing clear, concise, complete, and accurate reports with an emphasis on sentence structure, paragraph construction, grammar, punctuation, and spelling.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS290BE	Probation and Parole		Current issues in probation and parole, including sentencing, parole revocation, and administrative procedure	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS290BH	Sex Crimes Investigation		Investigative procedures employed by the police and courtroom procedures utilized by the prosecuting attorney in sex-related crimes	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS290BJ	Accident Investigation I		Skills and concepts necessary to conduct an adequate traffic accident investigation	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS290BN	Courtroom Testimony Seminar		Courtroom demeanor and protocol. Role and primary functions of witness and legal counsels	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS290BU	Family Violence		Family violence issues as they relate to the criminal justice response	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
AJS290BV	Victim Assistance		An overview of victim issues emphasizing strategies used to reduce the trauma associated with crime.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes description of counseling methods, referral procedures, intervention techniques, and community resources				
AJS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
AJS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
AJS296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AJS296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
AJS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AJS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
AJS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
ALT100	Academic Literacy Through Integrated Reading and Writing		Develops academic language skills and critical reading skills for organizing, analyzing, and retaining material through complementary reading and writing assignments. Prepares students for college level reading and writing intensive courses as well as career-related reading and writing tasks.	Prerequisites: An appropriate District placement.		Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AMS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
AMS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
AMS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
AMT124	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations		Federal Aviation maintenance publications, forms and records. Overview of technician`s privileges and limitations. Perform aircraft weight and balance, aircraft ground operations and fuel servicing techniques. Drawings, symbols and schematic diagrams.	Prerequisites: Admission to the Aircraft Maintenance Technology program.		Occ	L+L 5.0 9.0 9.0
AMT126	Fundamentals of Mathematics and Electricity		Mathematical computation of fundamental electrical circuit parameters. Basic definitions, laws, and concepts. Schematic, wiring, and parts placement diagrams. Test and troubleshoot electrical and electronic components and circuits.	Prerequisites: Admission to the Aircraft Maintenance Technology program.		Occ	L+L 9.0 12.0 12.0
AMT128	Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittin		Basic concepts of motion, fluid dynamics, heat and sound, aerodynamics, aircraft structure and theory of flight. Fluid lines and fittings, component identification, function, inspection, and installation. Cleaning and corrosion control, materials and processes, non-destructive testing, and precision measurement techniques.	Prerequisites: Admission to the Aircraft Maintenance Technology program.		Occ	L+L 5.0 9.0 9.0
AMT220	Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures		Theories and techniques of aircraft wood structures. Inspection, test and repair of aircraft fabric and wood structures. Aircraft structural design and methods of working with selected materials. Characteristics of	Prerequisites: Admission to the program.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			composites, inspections and repairs				
AMT222	Atmosphere Control, Fire Detection, Ice and Rain Protection Systems		Operation and maintenance of aircraft auxiliary systems. Inspection, servicing, troubleshooting and repair of environmental control, ice and rain control, fire protection and warning systems	Prerequisites: Admission to the program.		Occ	L+L 4.0 6.0 6.0
AMT224	Aircraft Sheet Metal		Inspection, fabrication, and repair techniques of aircraft structural and nonstructural components. Sheet metal heat-treating techniques	Prerequisites: Admission to the program.		Occ	L+L 5.0 11.0 11.0
AMT226	Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position and Warning Systems		Identification, inspection, repair, and troubleshooting techniques of aircraft landing gear, hydraulic, fuel, pneumatic, and position and warning system components	Prerequisites: Admission to the program.		Occ	L+L 7.0 12.0 12.0
AMT228	Aircraft Electrical Systems, Instruments, Fuel Indicating, Communication and Navigation Systems		Proper operation, inspection, servicing and troubleshooting of DC(Direct Current) and AC(Alternating Current) sources, systems, and components. Mechanical and electrical sensing and information display systems. Fuel indicator system inspections, repairs, and troubleshooting. Transmitter and receiver fundamentals. Avionics installation, inspection and testing	Prerequisites: Admission to the program.		Occ	L+L 7.0 12.0 12.0
AMT230	Airframe Assembly, Inspection and Welding		Aircraft assembly and rigging. Flight control balancing and rigging. Airframe inspection techniques, reporting procedures, and aircraft jacking. Welding techniques, theory, and materials identification	Prerequisites: Admission to the program.		Occ	L+L 6.0 11.0 11.0
AMT263	Aircraft Turbine Engines		Historical development and application of turbine engines. Theory of thrust and the design	Prerequisites: Admission to the program.		Occ	L+L 5.0 9.0 9.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and environmental factors which influence thrust. Turbine engine troubleshooting, inspection, service, repair and overhaul. Operational characteristics and engine test techniques on the aircraft and in test cells				
AMT264	Aircraft Reciprocating Engines		Historical development and application of reciprocating engines, theory, design, and operations. Techniques used in troubleshooting, overhaul, inspection, and repair of opposed and radial engines	Prerequisites: Admission to the program.		Occ	L+L 7.0 11.0 11.0
AMT266	Engine Fuel Systems, Fuel Metering and Induction System		Inspection, servicing, troubleshooting, overhaul, and repair of aircraft fuel systems and components, fuel metering devices, injection systems, turbochargers, and superchargers. Induction system principles of operation and design	Prerequisites: Admission to the program.		Occ	L+L 6.0 9.0 9.0
AMT268	Engine Electrical, Ignition and Starter Systems		Inspect, service, troubleshoot, overhaul, and repair of engine electrical, ignition, starter systems, and components	Prerequisites: Admission to the program.		Occ	L+L 6.0 12.0 12.0
AMT270	Engine Instruments, Fire Protection and Lubrication, Cooling and Exhaust Systems		Operation, maintenance, servicing, inspection, repair, and troubleshooting of engine instruments, fire detection and extinguishing, engine lubrication, cooling, and exhaust systems	Prerequisites: Admission to the program.		Occ	L+L 5.0 8.0 8.0
AMT272	Propeller Systems and Engine Inspections		Historical development, operation, disassembly, inspection, repair, and maintenance of propellers. Reciprocating and turbine engine inspection and documentation	Prerequisites: Admission to the program.		Occ	L+L 4.0 8.0 8.0
AMT298AA	Special Projects		Organized and tailored around the interests and	Prerequisites: Permission of		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Program Director or Instructor.			
AMT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
AMT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
APT101	Automotive Service Operations		Theory and operation of basic automotive systems. Basic principles of working in an automotive service area. Management-employee relations, resume writing, interviewing, shop practices, flat-rate system, equipment care, and basic hand tools.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
APT111	Internal Combustion Engines Theory		Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
APT131	Automotive Manual Power Trains		Designed for beginning automotive students. Operation, diagnosis, service, and repair of the automotive power train. Includes manual transmissions and transaxles, clutches, front and rear drive axles, drive shafts, differentials and transfer case.	Prerequisites: None.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0
APT141	Alignment, Steering, and Suspension		Designed for beginning automotive students. Fundamental principles of steering and suspension systems. Includes two- wheel and four-wheel alignment procedures. Emphasis on diagnosis, testing, service, and replacement of steering and suspension components.	Prerequisites: None.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0
APT151	Automotive Brake Systems		Designed for beginning automotive students. Fundamentals of drum, disc, ABS and hybrid regenerative braking	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			theory. Includes training in diagnosis, testing, service, and repair.				
APT161	Auto Electrical/Electronic Systems I		Designed for beginning automotive students. The principles of electricity including Ohm`s Law, circuit principles and wiring diagrams. Skill development will include diagnosis, testing, service and repair of batteries, starting systems, charging systems, lighting systems, horns, wipers, defoggers, door locks, power mirrors, power windows, power seats and the use of Digital Multi Meters (DMM) will be addressed in this course.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0
APT171	Automotive Air Conditioning		Designed for beginning automotive students. Theory and principles of ventilation, heating, automotive refrigeration, vacuum-electric controls, and automatic temperature control systems. Includes training in diagnosis, testing, service and repair.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0
APT181	Engine Performance and Diagnosis I		Designed for beginning automotive students. Engine construction and operating principles, including lubrication, cooling, induction, exhaust, fuel, and ignition systems. Includes training in diagnosis, testing, service, and repair.	Prerequisites: None.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0
APT262	Auto Electrical/Electronic Systems II		Designed for experienced students. This course develops knowledge of body control modules including skill development, diagnosis, testing, service, and repair of the following	Prerequisites: A grade of C or better in APT161 or permission of Instructor.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			systems - advanced lighting circuits, vehicle stability control, traction control, basic and advanced climate control systems, integrated safety systems, collision avoidance systems, start-stop technology, hybrid technology, mobile connectivity, use of Digital Multi Meters (DMM) and automotive oscilloscopes.				
APT282	Engine Performance and Diagnosis II		Designed for the experienced engine performance student. This course will include training in fuel systems, emission systems, ignition systems, turbocharging, computerized engine controls and engine driveability. Also, training in diagnosis, testing, service, repair, and documenting for customer understanding using the 3C's which are Concern, Cause and Correction will be addressed in this course.	Prerequisites: A grade of C or better in APT181 or permission of Instructor.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0
ARB101	Elementary Arabic I		Introduction to the basic alphabet, grammar, pronunciation and vocabulary of the Arabic language. Listening, speaking, reading and writing skills.	Prerequisites: None.		Acad	L+L 5.0 5.0 5.0
ARB102	Elementary Arabic II		A continuation of ARB101. Continued study of grammar and vocabulary, with emphasis on pronunciation and speaking skills.	Prerequisites: A grade of C or better in ARB101. Completion of prerequisites within the last three years is required.		Acad	L+L 5.0 5.0 5.0
ARB115	Beginning Arabic Conversation I		Conversational Arabic with emphasis on basic sentence structure, pronunciation and vocabulary. Designed to develop speaking and	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			listening abilities with less emphasis on grammar				
ARB201	Intermediate Arabic I		Review of essential grammar of the Arabic language and study of the Arabic culture. Continued practice and development of reading, writing, and speaking skills. Emphasis on both fluency and accuracy in the spoken language.	Prerequisites: A grade of C or better in ARB102 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	L+L 5.0 5.0 5.0
ARB202	Intermediate Arabic II		Advanced grammatical structures in Arabic. Further development of language skills with emphasis on speaking the language.	Prerequisites: A grade of C or better in ARB201 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	L+L 5.0 5.0 5.0
ARB296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				major or career interest or with permission of the Instructor.			
ARB296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
ARB296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				(students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ARB296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0
ARB298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to	Prerequisites: Permission of Program		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
ARB298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
ARB298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development. COMMON COMPETENCY COURSE				
ARC100	Introduction to Environmental Design		A survey of design through historical evaluation of built environments and works of well-known architects. Principles, concepts, and skills associated with designs of actual and imagined ideas and things. Emphasis on social, technical, environmental, and theoretical forces that impacts design	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
ARC120	Design Fundamentals I		An introduction to architectural drawing and graphic representation methods. Using architectural drawings and graphic representations as visualization, and problem-solving methods. Emphasis on visual communication, and the application and development of the visual design via process as well as product.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
ARC121	Introduction to Architectural Drafting: Manual		Emphasis on basic techniques and principles of manual architectural drafting. Includes hand lettering, line work, dimensioning, multi-view projection, work in plan, section, and elevation views, design standards, wall details, office procedures, and portfolio development	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
ARC140	Rendering and Portfolio Development		Two-dimensional and three-dimensional drawings and rendering methods, including freehand and/or use of drawing tools for presentation of ideas. Techniques for use of pencil, ink, and colors. Professional formatting of portfolios	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ARC141	Architectural CAD I: Introduction		Introduction to Computer Aided Drafting (CAD) for Architecture, Interior Design, and related professions using AutoCAD software. Includes basic operational systems, drawing set-ups, architectural formats, and two-dimensional drawing. Editing commands, annotation, and plotting for the industry also included.	Prerequisites: None.	ARC141 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0
ARC142	Architectural CAD II: Plans and Elevations		Computer Aided Drafting (CAD) instruction directed to the creation of fully annotated plan, elevation, and schematic section views including dimensions, notes, symbols, and schedules. Introduction to three-dimensional (3D) CAD using SketchUp.	Prerequisites: A grade of C or better in ARC141 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
ARC143	Architectural CAD: Extended Study		Reinforcement and extended study of basic two-dimensional computer aided drafting (CAD) skills for Architecture, Interior Design, and related professions using AutoCAD software. Includes sending/receiving drawing files on web; templates/set-ups; dimension/text formats; sheet management; external referencing, design center, basic/extended drawing and editing commands, and plotting.	Prerequisites: A grade of C or better in ARC141 or permission of Instructor.	ARC143 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0
ARC146	Architectural Print Reading		Analysis and interpretation of architectural working drawings including written specifications and drawings prepared by consulting engineers.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
ARC148	Methods and Materials of Construction		Modern methods of construction and materials for residential,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			multiple, and commercial building, including the four types of structures used: wood, concrete, steel and masonry. Methods of assembly and how different materials can be used to create desired designs. Requirements of most recent building codes and the F.H.A. standards				
ARC150	Architectural Desktop I		Residential construction drawing using Architectural Desktop (ADT). Includes preliminary workspace setups, configuration procedures, modules operations, and on screen menus applicable for producing components of a building model.	Prerequisites: A grade of C or better in CON130 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
ARC160	Site Planning		Emphasis on the basic art of site planning, using professional design techniques and principles of architecture to develop site plans. Selection of materials, awareness of problems, and emphasis on the production of site plan drawings using board and/or computer aided drafting (CAD) skills.	Prerequisites: A grade of C or better in DFT122 or permission of Program Director.		Occ	L+L 3.0 6.0 6.0
ARC161	Residential Architectural Drafting		Basics of residential drafting and documentation topics and techniques. Includes preliminary planning and preparation for residential documentation; use of the local building codes and standards; complete drawing and annotation of a floor plan, reflected ceiling plan, roof plan, a building sections, framing plan, and exterior elevations.	Prerequisites: A grade of C or better in CON130 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
ARC162	Advanced Residential Architectural Drafting		Advanced residential drafting and documentation topics	Prerequisites: A grade of C or better in	Course Attribute(s): COMMON	Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and techniques. Includes site orientation, layout and legal description; window and door schedules; interior elevation of kitchen and bath rooms; advanced instruction on framing and structural detail methods; foundation systems, support and layout; and other needed residential details and layouts.	ARC161 and CON230 or permission of Department or Division.	COMPETE NCY COURSE		
ARC163	Commercial Architectural Drafting		Fundamental commercial drafting and documentation topics and techniques. Includes preliminary planning and preparation for commercial documentation; use of the local building codes and standards; building methods and materials of commercial structures; complete drawing and annotation of a floor plan, reflected ceiling plan, roof plan, building sections, and exterior elevations.	Prerequisites: A grade of C or better in CON130 or permission of Department or Division.	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	L+L 3.0 6.0 6.0
ARC164	Advanced Commercial Architectural Drafting		Further development of advanced commercial drafting and documentation topics and techniques. Covers commercial building materials and methods, specifications, land drawings, foundation plans, interior elevations, and more details specific to commercial buildings.	Prerequisites: A grade of C or better in (ARC163 and CON130) or permission of Department or Division.	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	L+L 3.0 6.0 6.0
ARC165	Introduction to Architecture Professional Practice and Ethics		Professional, legal, and ethical issues in architecture practice and services. Includes marketing issues, communications, standards, insurance and bonds, agreements, contracts and contractors, standard American Institute of Architecture (AIA) forms	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and conditions, selection of contractors, and bidding procedures				
ARC225	Fundamentals of Architectural Detailing		Introduction to construction /architecture detailing. Examines functional, construction-related, and aesthetic applications of detailing.	Prerequisites: A grade of C or better in CON130 or CON252 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
ARC226	Advanced Architectural Detailing		Advanced methods of detailing major construction materials such as wood, steel, and concrete, ranging from simple residential to more complicated commercial structures. Includes detailing foundations, exterior and interior walls, roof and ceiling areas.	Prerequisites: A grade of C or better in CON130 or CON252 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
ARC243	Architectural CAD III: Site Plans and Sections		Computer-aided drafting (CAD-based) instruction directed to the creation of fully annotated site plans and sectional views. Development of professional quality site plans, wall sections, and building sections working from given residential and commercial layouts. Assignments incorporate applicable codes, construction materials and methods and office practices typical to the local area.	Prerequisites: A grade of C or better in ARC142 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
ARC244	Architectural CAD IV: Structural Systems		CAD-based(Computer-Aided Drafting) instruction for layout and completion of fully annotated structural drawings. Focuses on working from residential and commercial layouts to develop professional quality roof, roof framing, floor framing and foundation plans. Emphasis on the use of applicable codes, construction materials and methods, and office	Prerequisites: A grade of C or better in ARC142 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			practices typical to the local area				
ARC245	Architectural CAD V: Mechanical and Electrical Systems		CAD-based(Computer-Aided Drafting) instruction for layout and completion of fully annotated building systems drawings. Focuses on working from residential and commercial layouts to develop professional quality Electrical, Mechanical(HVAC), Plumbing and Reflected Ceiling plans. Emphasis on the use of applicable codes, construction materials and methods, and office practices typical to the local area	Prerequisites: A grade of C or better in ARC142 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
ARC246	Architectural CAD VI: Construction Details		Typical southwestern construction systems and details. Creation of personal standard detail files for wood frame, concrete masonry, and other specialized construction systems.	Prerequisites: A grade of C or better in ARC243 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
ARC250	Basic Revit	INT250	Basic skills required to complete architectural drawings with Revit software; simplified overview of the software program and operations gained through completing typical plan, elevation, sectional, and 3D views, using generic walls and related components.	Prerequisites: None. ARC141, or previous AutoCAD/industry experience recommended.	ARC/INT250 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0
ARC251	Intermediate Revit		Comprehensive use of Revit Design Development tools through the development of 3-D model(s) in working drawing and rendered formats. Includes completing a set of construction documents from creating walls, incorporating doors, windows, floor, stairs, etc., to adding views and annotation to various sheets and	Prerequisites: None. ARC250 or previous architectural and CAD experience strongly recommended.	ARC251 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			coordinating those sheets within the finished set.				
ARC252	Advanced Revit		Advanced applications and use of REVIT architectural software in completing assigned projects; focus on customization of the Revit environment and developing Revit families.	Prerequisites: A grade of C or better in ARC251 or permission of Instructor.	ARC252 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0
ARC255	Introduction to Revit Structure		Introduction to Revit Structure software, addressing specialized options and processes used in structural engineering offices; includes project modeling, model analysis, reinforcement modeling, detailing, and documentation.	Prerequisites: None. Previous educational/p rofessional experience in architecture or structural engineering strongly recommende d.	ARC255 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0
ARC261	Architectural CAD 3D I: Introduction		Introduction to construction, manipulating, and rendering three-dimensional (3D) objects and architectural spaces on the computer using AutoCAD software.	Prerequisites: A grade of C or better in ARC141 or equivalent or permission of Department or Division. ARC142 suggested but not required.		Occ	L+L 3.0 6.0 6.0
ARC262	Architectural CAD 3D II: ADT and VIZ		Additional skill development in constructing, manipulating, and rendering three-dimensional (3D) architectural computer models using AutoCAD Architectural Desktop (ADT) and Viz Render (VIZ) software	Prerequisites: A grade of C or better in ARC261 or equivalent or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
ARC265	Sketchup I: Introduction to Sketchup	INT251	Provides students with introductory level instruction utilizing Sketchup rendering software for school and workplace applications. Addresses basic drawing/rendering commands, accessing	Prerequisites: None. Previous CAD experience recommende d but not required.	ARC265/INT251 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			external drawing files, and plotting through the creation of both three-dimensional schematic and rendered interior and exterior building views.				
ARC266	Sketchup II: Advanced Rendering Techniques	INT267	Provides students with advanced instruction utilizing Sketchup, Google Earth, Sandbox and Podium rendering software for school and workplace applications. Creation of photo-realistic rendered three-dimensional interior and exterior building/site views.	Prerequisites: A grade of C or better in ARC265/INT 251 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
ARC270	Architectural Technology Synthesis		Provides students an opportunity to integrate and synthesize knowledge and skills acquired in prerequisite courses. Includes completion of a full set of working drawings using AutoCAD under supervision comparable to workplace situations. Designed to provide practice in self-checking work, correcting and editing drawings, and assembling a portfolio.	Prerequisites: A grade of C or better in (ARC243 and ARC244 and ARC245) or permission of Instructor.	ARC270 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0
ARC282AA	Volunteerism for Architecture: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	ARC282AA may be repeated for a total of three (3) credit hours. May not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					college catalog.		
ARC282AB	Volunteerism for Architecture: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	ARC282AB may be repeated for a total of three (3) credit hours. May not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 2.0 2.0 0.0
ARC282AC	Volunteerism for Architecture: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 3.0 3.0 0.0
ARC290AA	Architecture Internship		Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups.	Prerequisites: A grade of C or better in ARC282++ or permission of Department or Division.	ARC290AA may be repeated for a total of three (3) credit hours. ARC290AA students may not repeat a specific assignment for more than three (3) credit hours. Standard grading available according to	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					procedures outlined in college catalog.		
ARC290AB	Architecture Internship		Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups.	Prerequisites: A grade of C or better in ARC282++ or permission of Department or Division.	ARC290AB may be repeated for a total of three (3) credit hours. ARC290AB students may not repeat a specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 2.0 2.0 0.0
ARC290AC	Architecture Internship		Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups.	Prerequisites: A grade of C or better in ARC282++ or permission of Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 3.0 3.0 0.0
ARC296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
ARC296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
ARC296W C	Cooperative Education		Work-college experiences that involve the combined efforts of	Prerequisites: Completion of at least		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
ARC296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				least one class which is related to students major or career interest or with permission of Instructor.			
ARC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
ARC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
ARC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to	Prerequisites: Permission of Program		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
ARH100	Introduction to Art		Understanding and enjoyment of art and visual culture through study of two-dimensional and three-dimensional works of art, design elements, media and processes, and cultural contexts. Emphasis on contemporary topics and cultural diversity in the arts.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ARH101	Art from Prehistory Through Middle Ages		History of art from the Paleolithic period through the Middle Ages.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ARH102	Art from Renaissance to Modernism		History of art from the Renaissance through Modernism.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ARH109	History of American Art		Study of the major art historical developments and traditions in the United States from pre-colonial times to the present, including the changing nature of American art and identity in the age of globalization. Consideration of major genres and stylistic characteristics with emphasis on the sociocultural contexts in which art was created and received.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ARH110	History of Graphic Design		Survey of the history of graphic design from its origins to the present. Traces the	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			characteristics, aesthetics, and relationships between graphic design and society. Includes movements, individual artists, and interpretation. Emphasizes the function of graphic design as a branch of human visual communication.				
ARH112	Introduction to Modern and Contemporary Art		Study of art and theory from the mid-nineteenth century to the present. Focus on European and American modern and contemporary art while considering other regions of the world. Examination of the historical, social, and cultural contexts of artistic developments. Application of various interpretive models to examine modern and contemporary art.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ARH115	History of Photography		Survey of history of photography from beginning to present. Emphasizes the reciprocal relationship between the medium's development and reception, society, and other visual arts. Technical developments, photographic practices, and sociocultural themes are studied.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ARH118	Introduction to Chinese Art		Explores Chinese philosophy, symbolism, history and religions that underlie the choice of subject matter and life forms in Chinese art. Uses Chinese bamboo brush, ink and rice paper to study Chinese calligraphy and traditional subjects for painting	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and	Acad	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Design - [HU]		
ARH145	History of American Indian Art		Survey of American Indian Art from precontact to present. Reviews the impact of these art forms on contemporary American society, other world societies and on the visual arts. Explores characteristics, cultural influences and concerns represented in various art forms past and present. Features field trips to galleries and collections	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ARH201	Art of Asia		Introduction to the origins and historical development of art in Asia, with emphasis on Asia's major sub-regions including West, Central, East, South, and Southeast.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ARH202	Art of Africa, Oceania, and Americas	X Ref	Study of the material cultures of Africa, America, and Oceania, with an emphasis on diverse worldviews and their expression within a contemporary global context.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ARH203	Art of Ancient Egypt		The art and culture of ancient Egypt from prehistoric through the Greco-Roman period	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ARH204	Roman Art and Architecture		Detailed examination of the art and architecture of ancient Rome from the monarchical period to the late empire, with emphasis on the visual	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			culture and artifacts of the civilization.		Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]		
ARH216	Pre-Columbian Art History		Art of the Americas prior to European contact, focusing on Mesoamerica and the Central Andean region and their respective adjoining areas, with some attention to the U.S. Southwest and Eastern Woodlands Mound Building cultures	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ARH217	Mexican Art History		Art of Mexico and related cultures, from the prehistoric to the contemporary period	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ARH240	Art and Architecture of the Islamic World to 1800		Introduction to the principal achievements in art and architecture of the Islamic world circa 650-1800 CE and placing them in social and cultural contexts and consideration of the historical evolution of Western knowledge and understanding of these works	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ARH250	Visual Language and Interpretation		Examines the communication of concepts through visual interpretation and expression.	Prerequisites: A grade of C or better in (ART111, ART112, ART131, ART167 and		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				ARH100) or permission of instructor.			
ARH298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
ARH298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
ARH298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
ART105	Art Beyond the Classroom		Visual arts experience. Includes field trips to galleries, museums, and collections as well as art lectures, demonstrations, and varied studio experiences.	Prerequisites: None.	ART105 may be repeated for a total of four (4) credit hours.	Acad	L+L 1.0 2.0 2.0
ART106	Gallery Operations		Operation of an art gallery. Includes organization, publicity, evaluation of artwork, selection and installation of exhibits.	Prerequisites: Permission of Instructor.	ART106 may be repeated for a total of six (6) credit hours.	Acad	L+L 3.0 6.0 6.0
ART110	Experimental Chinese Painting		Explores ancient Chinese techniques with rice paper and Chinese ink to create traditional and nontraditional designs. Emphasis on use of Chinese techniques in mixed media works.	Prerequisites: None.	ART110 may be repeated for credit.	Acad	L+L 1.0 2.0 2.0
ART111	Drawing I		Fundamental principles of drawing. Emphasis on composition and facility in objective and expressive representation, using variety of drawing media	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: ART 1111	Acad	L+L 3.0 6.0 6.0
ART112	Two-Dimensional Design		Study of fundamental elements and principles of two-dimensional design.	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: ART 1112	Acad	L+L 3.0 6.0 6.0
ART113	Color		Investigation seeking visual solutions to a variety of problems concerning color in two and three dimensions and modes of color appearances, including	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			light and effects in design and theory of design.				
ART115	Three-Dimensional Design		Fundamental principles of three-dimensional design.	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: ART 1115	Acad	L+L 3.0 6.0 6.0
ART116	Life Drawing I		Use of form, structure and anatomy of draped and undraped human figure to develop basic principles of sound draftsmanship	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0
ART117	Life Drawing II		Further study of form, structure, and anatomy of the draped and undraped human figure with emphasis on composition	Prerequisites: A grade of C or better in ART116.		Acad	L+L 3.0 6.0 6.0
ART118	Art Anatomy		Artistic study of the concept of anatomical unity. Principle skeletal and muscular structures affecting surface form of the human figure. Includes drawing project, portfolio, and tests.	Prerequisites: A grade of C or better in ART116 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART122	Drawing and Composition II		Emphasis on composition and exploration of drawing media	Prerequisites: A grade of C or better in ART111.		Acad	L+L 3.0 6.0 6.0
ART131	Photography I		Basic photographic principles and techniques. Basic camera functions and controls. Experience in the image-making process by creating and editing photographs for various display environments. Introduction to the photographic aesthetic and photography's role in society.	Prerequisites: None.	ART131 requires a Camera. Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	L+L 3.0 6.0 6.0
ART132	Photography II		Advanced camera and darkroom techniques. Aesthetic awareness with personal expression	Prerequisites: A grade of C or better in ART131 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ART133	Photography III		Refinement of aesthetic and technical aspects producing convincing images of highest quality	Prerequisites: A grade of C or better in ART132 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART134	Photography IV		Emphasis on personal statement and style. Related graphic art forms explored. Development of portfolio	Prerequisites: A grade of C or better in ART133 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART136	Documentary Photography		Explore the history and contemporary trends of documentary photography. Students will learn how to research and define a topic, ethics of documentary photography, storytelling, production and post production techniques and distribution methods. Students will create a final documentary portfolio.	Prerequisites: A grade of C or better in ART131, or ART142, or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART137	Alternative Photographic Processes		This course focuses on the 19th-century photographic processes including new picture-making technologies. Discussing the history of photography in relation with techniques taught in class. Students encouraged to explore historical processes in combination with contemporary technologies. Through technical demonstrations, hands-on workshops, and technical assignments, students develop a working knowledge of a range of processes while developing their own visual language.	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0
ART145	Digital Storybook	COM145 STO145	Enables students to find and develop a narrative representing an aspect of their personal histories. Use of digital	Prerequisites: None.		Acad	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technology to produce and archive a storybook.				
ART150	Digital Storytelling	COM150 STO150	Enables students to find and develop their personal stories. Emphasis on the use of digital technology to create, edit, produce and archive a digital story	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0
ART151	Sculpture I		Exploration of sculptural form and expression in clay, plaster, stone, wood and metal.	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0
ART152	Sculpture II		Emphasis on control of sculptural media	Prerequisites: A grade of C or better in ART151.		Acad	L+L 3.0 6.0 6.0
ART153	Woodworking I		Fundamental woodworking techniques to produce creative functional and sculptural, three-dimensional objects.	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0
ART154	Woodworking II		Advanced design, joinery, fixture building, and woodworking techniques. Application of design principles.	Prerequisites: A grade of C or better in ART153.		Acad	L+L 3.0 6.0 6.0
ART155	Glass Fusing and Slumping I		Introduction to the basics involved in glass fusing and slumping. The concepts of glass, glass fusing, and glass slumping will be covered with hands-on experience using a variety of techniques to create finished glass projects such as jewelry, dishes, frames, and door bells.	Prerequisites: None.	ART155 may be repeated for a total of twelve (12) credits	Acad	L+L 3.0 6.0 6.0
ART156	Glass Fusing and Slumping II		Further study in the area of glass fusing and slumping. Advanced techniques including Pate-de-Verre, Pattern Bars, watchbands, bracelets, and patterned dishes.	Prerequisites: A grade of C or better in ART155.	ART156 may be repeated for a total of twelve (12) credits	Acad	L+L 3.0 6.0 6.0
ART158	Introduction to Glass Blowing		Introduction to the basics involved in free hand blowing glass. The concepts of hot glass, glass shaping, and glass blowing will be covered with hands-on	Prerequisites: None.	ART158 may be repeated for a total of twelve (12) credits.	Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			experience using a variety of techniques to create finished glass projects such as spheres, cones, cups, and other hollow glass objects.				
ART159	Intermediate Glass Blowing		Further study in the area of glass blowing. Advanced techniques including traditional techniques as well as further investigation into color, form, and scale.	Prerequisites: A grade of C or better in ART158.	ART159 may be repeated for a total of twelve (12) credits.	Acad	L+L 3.0 6.0 6.0
ART160	Advanced Glass Blowing		Further study in the area of glass blowing with emphasis on advanced techniques and design considerations, such as sculpting, larger scale projects, working in multiples, and further refinement of technical skill.	Prerequisites: A grade of C or better in ART159.	ART160 may be repeated for a total of fifteen (15) credit hours.	Acad	L+L 3.0 6.0 6.0
ART161	Ceramics I		Introduction to ceramic materials and techniques of hand construction, decorating, glazing and throwing on potters' wheel	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0
ART162	Ceramics II		Major emphasis on wheel throwing, glaze making and decorating techniques	Prerequisites: A grade of C or better in ART161.		Acad	L+L 3.0 6.0 6.0
ART165	Watercolor Painting I		Transparent and Gouache watercolor painting.	Prerequisites: A grade of C or better in (ART111 and ART112) or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART166	Watercolor Painting II		Painting in water soluble media. Emphasis on individual techniques and design.	Prerequisites: A grade of C or better in ART165.		Acad	L+L 3.0 6.0 6.0
ART167	Painting I		Exploration of technical and expressive possibilities of various media in painting.	Prerequisites: A grade of C or better in (ART111 and ART112) or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART168	Painting II		Continued refinement of painting skills and investigation of new possibilities in painting	Prerequisites: A grade of C or better in ART167 or		Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
ART171	Jewelry I		Fundamentals of jewelry making. Covers hand formed methods, including cutting, shaping, forging, soldering, and lost wax technique	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0
ART172	Jewelry II		Further refinement of personal expression using techniques and design concepts of ART171	Prerequisites: A grade of C or better in ART171.		Acad	L+L 3.0 6.0 6.0
ART211	Drawing and Composition III		Advanced development of drawing skill with emphasis on compositional theory	Prerequisites: A grade of C or better in ART122 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART216	Life Drawing III		Advanced creative study from model in various painting and drawing media	Prerequisites: A grade of C or better in ART117 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART217	Life Drawing IV		Further development of skills in expressive drawing materials and techniques as applied to finished drawings of the human form	Prerequisites: A grade of C or better in ART216 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART222	Drawing and Composition IV		Further study of drawing techniques with emphasis on individual problems and techniques	Prerequisites: A grade of C or better in ART211 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART234	Color Photography		Basic principles of color theory, camera and input and output techniques using analog or digital photography.	Prerequisites: A grade of C or better in ART131, or AVC142, or permission of Instructor.	Film or digital camera is required.	Acad	L+L 3.0 6.0 6.0
ART241	Intaglio		Introduction to traditional concepts and techniques for Intaglio printmaking. Deals with black and white printing; includes brief introduction to color printing. Covers various tools and materials used in Intaglio	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0
ART242	Lithography		Provides introduction to concepts and techniques	Prerequisites: A grade of C		Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of Lithography, both in plate and stone methods. Focus on black and white Lithographic drawing techniques. Introduction in color printing given	or better in ART111 and ART113.			
ART250	Introduction to Printmaking		Introduction to concepts and techniques involved in Fine Art field of Printmaking. Deals with three most basic Printmaking modes of Serigraphy, Woodcut, and Monoprinting in first part of course. Overview of Etching, Lithography and Papermaking in second part of course.	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0
ART251	Sculpture III		With emphasis on attention to individual problems and techniques	Prerequisites: A grade of C or better in ART152.		Acad	L+L 3.0 6.0 6.0
ART252	Sculpture IV		Advanced sculpture problems and professional practices	Prerequisites: A grade of C or better in ART251.		Acad	L+L 3.0 6.0 6.0
ART253	Woodcut		Focuses on relief method of printing, utilizing the techniques of Woodcut. Deals specifically with black and white images. Study of printing materials and tools, papers and printing methods. Relief printing in color introduced. Traditional forms of Woodcut, also an overview of innovative techniques in the field	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0
ART255	Art Marketing		Career goals, presentation of artist and art work (portfolio, resume, business cards, catalog), pricing and selling works, networking, establishing a studio, promotion and publicity, writing press releases, proposal writing, business ethics, artist rights, copyright law, contracts and agreements, royalties,	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			record keeping, and communication skills				
ART255AA	Self Promotion		Career goals, presentation of artist, communication skills, keeping files and records, developing self-promotional materials	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ART255AB	The Portfolio		Choosing the right pieces to include, presenting art work, developing the portfolio.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ART255AC	Marketing Fine Art		Exhibitions and galleries, establishing a studio, alternative markets	Prerequisites: A grade of C or better in ART255AB or permission of Instructor.		Acad	LEC 1.0 1.0 1.0
ART256	Glass Fusing and Slumping III		Further study in the area of glass fusing and slumping with emphasis on advanced techniques and design considerations, such as, plates designed using different techniques, weaving or strip glass, and combining previous techniques to create projects.	Prerequisites: A grade of C or better in ART156.	ART256 may be repeated for a total of fifteen (15) credits.	Acad	L+L 3.0 6.0 6.0
ART257	Glass Fusing and Slumping IV		Further study of advanced glass fusing and slumping including problems, professional practices, personal expression and experimental research into various techniques.	Prerequisites: A grade of C or better in ART256.	ART257 may be repeated for a total of fifteen (15) credits.	Acad	L+L 3.0 6.0 6.0
ART258	Papermaking		Introduction to concepts and techniques of Fine Art Papermaking. Basic overview of historical origins of craft and importance of modern papermaking to fine arts	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0
ART259	Monoprinting		Introduction to concepts and techniques for Monoprintmaking. Deals with la prima technique used in painting in first part of course. Multi-plate printing and how method of printing relates to use of color and separation in second part of course	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ART261	Ceramics III		Emphasis on wheel throwing skill and individual style development	Prerequisites: A grade of C or better in ART162.		Acad	L+L 3.0 6.0 6.0
ART262	Ceramics IV		Experimental work in clays and glazes	Prerequisites: A grade of C or better in ART261.		Acad	L+L 3.0 6.0 6.0
ART263	Figure Painting		Study of the nude and clothed figure in painting with special attention upon relevant color palettes, direct and indirect figurative painting techniques, and development of anatomical knowledge and compositional structure. Students will draw upon both historical and contemporary modes of depicting the figure to develop a personalized approach to figure painting. Live models, photographs, drawings, "Planes of the Head" models, and the studio skeleton will be used as the basis of projects.	Prerequisites: A grade of C or better in ART167 or permission of Instructor.	Previous experience drawing from the live model recommended. Oil paint is the preferred medium but students may work in other painting media if they have previous experience. ART263 may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART264	Glass Casting		Further study of glass art with a focus on casting and kiln working, including problems, professional practices, personal expression and experimental application of various techniques.	Prerequisites: A grade of C or better in ART160.	ART264 may be repeated for a total of fifteen (15) credits.	Acad	L+L 3.0 6.0 6.0
ART265	Watercolor Painting III		Continuation of watercolor painting with emphasis on control and expression	Prerequisites: A grade of C or better in ART166.		Acad	L+L 3.0 6.0 6.0
ART266	Watercolor Painting IV		Advanced problems directed toward more personal expression	Prerequisites: A grade of C or better in ART265.		Acad	L+L 3.0 6.0 6.0
ART267	Painting III		Development of materials and techniques of painting. Individual problem-solving	Prerequisites: A grade of C or better in ART168 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART268	Painting IV		Advanced problem in painting. Study with	Prerequisites: A grade of C or better in		Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			greater emphasis on personal expression	ART267 or permission of Instructor.			
ART271	Jewelry III		Emphasis on advanced jewelry design techniques and practices.	Prerequisites: A grade of C or better in ART172.	Further refinement and mastery of the skills and techniques introduced in ART171 and ART172.	Acad	L+L 3.0 6.0 6.0
ART272	Jewelry IV		Emphasis on expanding repertoire of advanced jewelry design techniques and practices.	Prerequisites: A grade of C or better in ART271.	Further refinement and mastery of the skills and techniques introduced in ART271.	Acad	L+L 3.0 6.0 6.0
ART275	Lost Wax Casting I		Introduction to lost wax casting techniques for jewelry and small sculptures. Emphasis on design concepts as related to three-dimensional forms	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0
ART276	Lost Wax Casting II		Advanced course in lost wax casting techniques for jewelry and small sculptures. Emphasis on the continuation of individual expression using the lost wax method	Prerequisites: A grade of C or better in ART275.		Acad	L+L 3.0 6.0 6.0
ART277	Textiles I		Introduction to exploration of textile media.	Prerequisites: A grade of C or better in ART112 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART282AA	Service-Learning Experience in Art		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ART282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					outlined in catalog.		
ART282AB	Service-Learning Experience in Art		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ART282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
ART282AC	Service-Learning Experience in Art		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ART282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
ART290AA	Studio Art		Studio course for art majors allowing continuation in a subject field.	Prerequisites: Permission of Instructor.	ART290AA students must have completed advanced courses in the subject field. ART290AA may be repeated for credit.	Acad	L+L 1.0 2.0 2.0
ART290AB	Studio Art		Studio course for art majors allowing continuation in a subject field.	Prerequisites: Permission of Instructor.	ART290AB students must have completed advanced courses in the subject field. ART290AB may be repeated for credit.	Acad	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ART290AC	Studio Art		Studio course for art majors allowing continuation in a subject field.	Prerequisites: Permission of Instructor.	ART290AC students must have completed advanced courses in the subject field. ART290AC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290BC	Studio Art: Drawing		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART111 or permission of Instructor.	ART290BC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290CC	Studio Art: Mixed Media		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART112 or permission of Instructor.	ART290CC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290DC	Studio Art: Life Drawing		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART117 or permission of Instructor.	ART290DC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290EC	Studio Art: Photography		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART132 or permission of Instructor.	ART290EC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290FF	Studio Art: Sculpture		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART252 or permission of Instructor.	ART290FF may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290GC	Studio Art: Ceramics		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART162 or permission of Instructor.	ART290GC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290HC	Studio Art: Watercolor		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART166 or permission of Instructor.	ART290HC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290JC	Studio Art: Color		Studio course for art majors allowing	Prerequisites: A grade of C	ART290JC may be	Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			continuation in a subject field.	or better in ART113 or permission of Instructor.	repeated for credit.		
ART290KC	Studio Art: Glazing Techniques		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART162 or permission of Instructor.	ART290KC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290LC	Studio Art: Clay Bodies		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART162 or permission of Instructor.	ART290LC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290MC	Studio Art: Digital Photography		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART143 or permission of Instructor.	ART290MC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290PC	Studio Art: Painting		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART168 or permission of Instructor.	ART290PC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART290WC	Studio Art: Woodworking		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART154 or permission of Instructor.	ART290WC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
ART295AC	Art Workshop/Seminar: Drawing		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 3.0 6.0 6.0
ART295BA	Art Workshop/Seminar: Sculpture		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits		Acad	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				intermediate level courses in specific field or permission of Department or Division Chair.			
ART295BC	Art Workshop/Seminar: Sculpture		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 3.0 6.0 6.0
ART295CA	Art Workshop/Seminar: Life Drawing		Advanced level workshop seminar in art disciplines	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 1.0 2.0 2.0
ART295DA	Art Workshop/Seminar: Photography		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 1.0 2.0 2.0
ART295DB	Art Workshop/Seminar: Photography		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3)		Acad	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.			
ART295DC	Art Workshop/Seminar: Photography		Advanced-level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 3.0 6.0 6.0
ART295EA	Art Workshop/Seminar: Painting		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 1.0 2.0 2.0
ART295EC	Art Workshop/Seminar: Painting		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department		Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or Division Chair.			
ART295GA	Art Workshop/Seminar: Ceramics		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 1.0 2.0 2.0
ART295GB	Art Workshop/Seminar: Ceramics		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 2.0 4.0 4.0
ART295GC	Art Workshop/Seminar: Ceramics		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 3.0 6.0 6.0
ART295HC	Art Workshop/Seminar: Mixed Media		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses		Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				in specific field or permission of Department or Division Chair.			
ART295LA	Art Workshop/Seminar: Glazing Techniques		Advanced level workshop seminar in art disciplines	Prerequisites: Permission of Instructor.		Acad	L+L 1.0 2.0 2.0
ART295LB	Art Workshop/Seminar: Glazing Techniques		Advanced level workshop seminar in art disciplines	Prerequisites: Permission of Instructor.		Acad	L+L 2.0 4.0 4.0
ART295LC	Art Workshop/Seminar: Glazing Techniques		Advanced level workshop seminar in art disciplines	Prerequisites: Permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART295MC	Art Workshop/Seminar: Clay Bodies		Advanced level workshop seminar in art disciplines	Prerequisites: Permission of Instructor.		Acad	L+L 3.0 6.0 6.0
ART295NA	Art Workshop/Seminar: Glass Blowing		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.	ART295NA may be repeated for a total of five (5) credits.	Acad	L+L 1.0 2.0 2.0
ASB100	Introduction to Global Health		The study of human health patterns at an international and local scale. Focus on pressing global health challenges that the world faces today are examined from a broad social, ecological, and cultural context.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
ASB102	Introduction to Cultural Anthropology		Principles of cultural anthropology, with illustrative materials from a variety of cultures. The nature of culture; social, political, and economic systems; religion, aesthetics and language.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Prerequisite	Course Note	Sub-ject Type	Credits Periods Load
ASB202	Ethnic Relations in the United States	AFR202 CCS202	Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
ASB211	Women Across Cultures		Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ASB214	Magic, Witchcraft and Healing: An Introduction to Comparative Religion		Origins, elements, and forms of religion; a comparative survey of religious beliefs, myths, rituals and symbolism including magic, witchcraft and healing as practiced in selected regions of the world; the place of religion in the total culture	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ASB220	Anthropology Goes to the Movies		Archaeology and anthropology through the lens of popular films of the 20th and 21st Century. Explores the popularity of ancient humans as a topic for film ventures and how accurately they are portrayed. Provides the student with a basic knowledge of	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			anthropology and offers film images of anthropologists and archaeologists and the practice of archaeology and anthropology. Analyzes accuracy of films depicting culture and our human past.				
ASB222	Buried Cities and Lost Tribes: Old World		Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled lifeways, the rise of cities and complex societies, political strife across different cultures and the forces which tend to fragment societies. Examples drawn from Africa, Asia, Europe, the Pacific Islands, and Australia	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
ASB223	Buried Cities and Lost Tribes: New World		Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled lifeways, the rise	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of cities and complex societies, political strife across different cultures and the forces which fragment societies. Examples drawn from North America, Central America, and South America.				
ASB226	Human Impacts on Ancient Environments		Interrelationship between humans and their environments, using archaeological data and case studies beginning with early hominids. Uses of research to identify environmental change and distinguish between climatic and human-induced global change. Explores ways in which prehistoric people caused and responded to environmental changes	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
ASB230	Principles of Archaeology		Introduction to archaeological methods and theory	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
ASB231	Archaeological Field Methods		Excavation of an archaeological site; recording and interpreting data collected during the field experience. Overview of the cultures concerned; contemporary issues in archaeology.	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (General) - [SG]	Acad	L+L 4.0 6.0 6.0
ASB234	Art and Archaeology of Ancient Egypt		Introduction to the major social, political, religious and economic institutions of Ancient Egypt. The historical events and people that shaped Egyptian civilization.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ASB235	Southwest Archaeology		Anthropological perspective and comparative study of the cultures of prehistoric	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			native peoples of the North American southwest.				
ASB245	Indians of the Southwest		Comparative study of the cultures, including the histories and present status, of Indians of the Southwest	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ASB252	Sports and Culture		Cross-cultural examination of symbolic and social dimensions of sports, past and present.	Prerequisites: None.	General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
ASB253	Death and Dying Across Cultures		Responses to death and dying in cultures around the world. Explanations for particular cultural responses to death and dying. Examples drawn from ancient and contemporary cultures	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ASB282AA	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASB282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
ASB282AB	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASB282AB may be repeated for a total of six (6) credit	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					hours. Standard grading available according to procedures outlined in catalog.		
ASB282AC	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASB282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
ASB298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
ASB298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
ASB298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
ASD100	Foundations of Addictions and Substance Use Disorders		Introduction to the foundations of the alcohol and drug abuse rehabilitation field. Emphasis on the roles and responsibilities of the addictions counselor, ethical issues, pharmacology, family dynamics, dual diagnosis, intervention techniques, self-help groups, levels of care, symptom identification, and conducting alcohol/drug histories. Interactive work stressed.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ASD102	Communication Skills in Treating Addiction		Further examination and refinement of communication and beginning professional counseling skills as they relate to the addicted client and family members. Emphasis on	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			practicing the application of these skills to various situations associated with treatment planning. Recordkeeping/documen-tation skills emphasized.				
ASD110	Pharmacology of Substances of Abuse and Dependency		Exploration of the pharmacology of substance of abuse and dependency. Examines the effects of psychopharmacological chemicals on human physiology. Emphasis on identification and management of substances of abuse and dependency.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ASD120	Professional Ethics in Addictions and Substance Use Disorders		Exploration of topics relative to the professional and ethical development of the addictions and substance use disorders counselor, including codes of ethics, confidentiality laws, professionalism and boundary issues, and the meeting of individual counselor needs within the field.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD145	AIDS and Addiction		Exploration of AIDS and its relationship to addiction. Emphasis on myths and realities of AIDS, personal values, feelings, and limitations and treatment goals.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD146	Peer Support Specialist		Introduction to the role and foundational responsibilities of a peer support specialist in the field of addictions and substance use. Explores basic pharmacology, ethics, case management, and crisis management. Recovery-Oriented Systems of Care (ROSC) is emphasized.	Prerequisites: None. Corequisites: ASD147.	ASD146 has not been approved by any state's Department of Health Services / Department of Behavioral Services (DHS) and may not lead to certification	Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					as a Peer Support Specialist/Recovery Support Specialist by DHS. Completion of ASD146 and ASD147 may lead to certification as a National Certified Peer Recovery Support Specialist by the National Certification Commission for Addiction Professionals (NCCAP) or in Peer Recovery by the International Certification & Reciprocity Consortium (IC&RC).		
ASD147	Peer Support Specialist Practicum		Peer support specialist preparation related to addictions and substance use disorders. Opportunity for students to use their developed knowledge and skills in an applied setting with supervision.	Prerequisites: None. Corequisites: ASD146.	ASD147 requires completion of 200 hours of practice experience. Course has not been approved by any state's Department of Health Services / Department of Behavioral	Occ	LAB 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Services (DHS) and may not lead to certification as a Peer Support Specialist/Recovery Support Specialist by DHS. Completion of ASD146 and ASD147 may lead to certification as a National Certified Peer Recovery Support Specialist by the National Certification Commission for Addiction Professionals (NCCAP) or in Peer Recovery by the International Certification & Reciprocity Consortium (IC&RC).		
ASD148	Introduction to the Science of Prevention		Overview of the science underlying evidence-based prevention interventions and strategies and the effective application of these approaches in prevention practice.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD149	Physiology and Pharmacology for Prevention		Overview of the physiology and pharmacology of psychoactive substances	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and their effects on the brain to affect mood, cognition, and behavior and the consequences of such use on the individual, family, and community.				
ASD150	Principles of Self-Help Groups		Overview of the fundamental principles, concepts and historical antecedents of the various self-help groups. Emphasis on the self-help groups of Alcoholics Anonymous, Al-anon, Alateen, Narcotics Anonymous, Co-dependents Anonymous, and Adult Children of Alcoholics.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
ASD151	Prevention Interventions and Policies		Overview of primary evaluation methods used to measure evidence-based prevention interventions and gives guidance in applying them to "real-world" prevention settings.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD152	Family-Based Prevention Interventions		Overview of the family as the primary socialization agent of children, the science behind family-based prevention interventions, and the application of such evidence-based approaches to help prevent the onset of substance use in children.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD153	School-Based Prevention Interventions		Overview of the role of the school in society, the science behind school-based prevention interventions, and the application of such evidence-based approaches in school settings around the world.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD154	Workplace-Based Prevention Interventions		Overview of the role of work and the workplace in society, how stressors and other work-related influences affect risk of substance use, the	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			science behind workplace prevention interventions, and the application of such evidence-based approaches in work settings around the world.				
ASD155	Environment-Based Prevention Interventions		Overview of the science underlying evidence-based substance use prevention using environmental interventions, involving policy, and community-wide strategies.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD156	Media-Based Prevention Interventions		Overview of the science underlying the use of media for substance use prevention interventions.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD157	Community-Based Prevention Implementation Systems		Overview of the science underlying the systems approach to prevention interventions and guidance for developing such approaches, as well as exemplars of evidence-based drug use prevention systems.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD158	Gambling Disorders Prevention		Overview of gambling disorders prevention. Emphasis on current prevention research. Also includes information on gambling prevention resources.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD159	Adolescent Substance Use Prevention		Adolescent substance use prevention issues. Emphasis on current and developing adolescent prevention information. Covers common adolescent substance use characteristics and prevention strategies.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD160	Behavioral Addictions Prevention		Overview of behavioral addictions prevention issues. Emphasis on current research. Also includes community resources information.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASD161	Beginning Clinical Documentation Skills		Overview of addictions and substance use disorders counseling, interviewing, and documentation. Includes	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			record keeping and documentation skills. Alcohol and drug abuse counselor core functions emphasized.				
ASD165	Theories and Techniques in the Treatment of Addictions		Overview of counseling theories including the application to addictions and substance use disorders groups. Recordkeeping skills and beginning counseling skills emphasized.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
ASD220	Family Dynamics and Addiction		Analysis of the impact of addictions on all the members of a family. Interviewing, assessment and therapeutic approaches particularly useful for these family members presented.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ASD226	Counseling Multicultural and Diverse Populations		Exploration of influences of culture and diversity on addictions and substance abuse. Emphasis on recovery and therapeutic relationships.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ASD236	Relapse, Recovery, and Addiction		Review of the bio-psycho-social processes of recovery and relapse in addictions. Exploration into those factors that both contribute to and inhibit recovery and relapse.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
ASD245	Co-Occurring Disorders		Examines co-occurring disorders from the bio-psycho-social model. Includes causes, consequences, assessment, and treatment, emphasizing the psychoeducational model of treatment.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
ASD250	Group Interventions		Focus on group dynamics and group process as they relate to addictions and substance use disorders. Exploration of group developmental stages, family intervention models, various counseling	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			approaches/techniques and their application to therapeutic, education and family groups.				
ASD275	Advanced Theory and Techniques in the Treatment of Addiction Disorders		Capstone course for level two certificate in addictions and substance use disorders program. Focus on counseling theories and techniques used by counselors as they relate to the client and family members.	Prerequisites: A grade of C or better in ASD220, ASD226, ASD245 and ASD250 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
ASD280	Addictions and Substance Use Disorders Practicum		Opportunity for advanced students to use his/her developed knowledge and skills in an applied setting with supervision.	Prerequisites: A grade of C or better in ASD275 or permission of Department or Division.	ASD280 may be repeated for a total of twelve (12) credit hours.	Occ	LAB 6.0 18.0 18.0
ASD285	Addictions Seminar		Special topics in addictions and substance use disorders with an emphasis on current issues not covered in other addictions and substance use disorders courses.	Prerequisites: None.	ASD285 may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285AA	Treatment for Stimulant Use Disorders Seminar		Stimulant use disorder treatment issues. Emphasis on current and developing treatment information. Covers common stimulant abuse characteristics and treatment strategies. Also includes community resource information.	Prerequisites: None.	ASD285AA may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285BB	Adolescent Substance Abuse Treatment Seminar		Adolescent substance abuse treatment issues. Emphasis on current and developing treatment information. Covers common adolescent substance abuse characteristics and treatment strategies. Also includes community resource information.	Prerequisites: None.	ASD285BB may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285CC	Addiction Review Seminar		A brief review of current addiction issues. Emphasis on current and developing treatment information. Covers	Prerequisites: None.	ASD285CC may be repeated for a total of four (4)	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			common alcohol and drug addiction characteristics and treatment strategies. Also includes community resource information.		credit hours.		
ASD285DD	Motivation for Change in Substance Abuse Treatment Seminar		Issues regarding motivational change in substance abuse treatment. Emphasis on current and developing treatment information. Covers common motivational change techniques. Also includes community resource information.	Prerequisites: None.	ASD285DD may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285EE	Domestic Violence and Substance Abuse Seminar		Domestic violence and substance abuse treatment issues. Emphasis on current and developing domestic violence and substance abuse information. Covers techniques, strategies, and treatment modalities for domestic violence and substance abuse patients. Also includes community resource information.	Prerequisites: None.	ASD285EE may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285FF	Street Drugs Seminar		Street drug issues. Emphasis on current and developing street drug information. Covers techniques strategies and treatment modalities for street drug abuse patients. Also includes community resource information.	Prerequisites: None.	ASD285FF may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285GG	Addictive and Medical Plants Seminar		Addictive and medical plant issues. Emphasis on current and developing addictive and medical plant information. Covers addictive and medical plant typology. Also includes community resource information.	Prerequisites: None.	ASD285GG may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285HH	Intervention and Treatment for Addictions and Substance Use Disorders Seminar		Brief interventions and treatment for addictions and substance use disorders. Emphasis on current and developing	Prerequisites: None.	ASD285HH may be repeated for a total of four (4)	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			intervention and treatment information. Covers treatment and intervention techniques for use with addictions and substance use disorders. Also includes community resource information.		credit hours.		
ASD285II	Multicultural Aspects		Multicultural aspects of counseling in addictions and substance use disorders. Emphasis on current and developing treatment information. Covers common aspects of multicultural characteristics and treatment strategies. Also explores ethical counselor/client relationships.	Prerequisites: None.	ASD285II may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285JJ	Clinical Supervision Training of Supervisors		Clinical supervision training of supervisor issues. Emphasis on current and developing treatment information. Also includes community resource information.	Prerequisites: None.	ASD285JJ may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285KK	Recovery-Oriented Systems of Care Seminar		Overview of recovery-oriented systems of care programs. Covers research, development, and characteristics of programs in addition to applicable federal mandates.	Prerequisites: None.	ASD285KK may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285LL	Gambling Addiction Seminar		A brief review of gambling addiction issues. Emphasis on current research, intervention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285LL may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285MM	Sexual Addiction Seminar		A brief review of sexual addiction issues. Emphasis on current research, intervention, and treatments in the field. Also includes community resources information.	Prerequisites: Student must be 18 years or older.	ASD285MM may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285NN	Eating Disorders Seminar		An overview of issues associated with eating disorders. Emphasis on	Prerequisites: None.	ASD285NN may be repeated for	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			current research, intervention, prevention, and treatments in the field. Also includes community resources information.		a total of four (4) credit hours.		
ASD285OO	Eating Disorders: Special Considerations and Populations Seminar		A review of issues associated with eating disorders within diverse populations. Emphasis on multicultural populations, current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285OO may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285PP	Eating Disorders: Conceptualization and Treatment Seminar		A review of issues associated with eating disorders. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285PP may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285QQ	Behavioral Addictions Seminar		A review of issues associated with behavioral addictions. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285QQ may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285RR	Behavioral Addictions Seminar: Internet-Related Addictions		A review of issues associated with internet-based behavioral addictions. Emphasis on diagnostic descriptions and considerations for internet-based addictions including current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285RR may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD285SS	Marijuana Addiction Seminar		An overview of issues associated with marijuana addiction. Emphasis on current research, intervention, prevention, and treatments in the field.	Prerequisites: None.	ASD285SS may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Also includes community resources information.				
ASD285TT	Opioid Addiction Seminar		An overview of issues associated with opioid addiction. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285TT may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
ASD295	Advanced Foundations: Addictions and Substance Use Disorders Counselor Licensing/Certification Exams		Review for individuals preparing for addictions and substance use disorders counselor licensing and/or certification exams. Emphasis on ethics, treatment, pharmacology, family issues, and self-help groups.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ASD296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of the instructor.			
ASD296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.		Occ	LAB 2.0 10.0 0.0
ASD296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify);		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.			
ASD296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.		Occ	LAB 4.0 20.0 0.0
ASD298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
ASD298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
ASD298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
ASE100	Introduction to Automotive Service		Introduction to the standards of the automotive industry. Includes an overview of	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the major automotive systems, safety practices, workplace habits, tools, and equipment.				
ASE102	Automotive Express Service		Use of standard service publications; performance of commonly used service operations following published service procedures; emphasis on good attitude development and safety habits about automotive service.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
ASE102AU	Automotive Express Service		Use of standard service publications; performance of commonly used service operations following published service procedures; emphasis on good attitude development and safety habits about automotive service.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE110	Engine Fundamentals		Diagnosis, disassembly, repair and reassembly of automotive internal combustion engines.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5
ASE110AU	Engine Fundamentals		Diagnosis, disassembly, repair and reassembly of automotive internal combustion engines.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5
ASE111	Engine Diagnosis and Inspection		Diagnosis and inspection of automotive internal combustion engines.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
ASE111AU	Engine Diagnosis and Inspection		Diagnosis and inspection of automotive internal combustion engines.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE120	Automatic Transmission and Transaxle		Principles of automotive operation, servicing and repair procedures for automatic transmissions/transaxles ; includes diagnostics and testing of mechanical, electrical, and hydraulic components.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5
ASE120AU	Automatic Transmission and Transaxle		Principles of automotive operation, servicing and repair procedures for automatic	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			transmissions/transaxles ; includes diagnostics and testing of mechanical, electrical, and hydraulic components.				
ASE130	Manual Drive Trains and Axles		Operation, diagnosis, service, and repair of the automotive powertrain. Includes manual transmissions/transaxles , clutches, drive axles, driveshafts, differentials, four-wheel drive, and all-wheel drive.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5
ASE130AU	Manual Drive Trains and Axles		Operation, diagnosis, service, and repair of the automotive powertrain. Includes manual transmissions/transaxles , clutches, drive axles, driveshafts, differentials, four-wheel drive, and all-wheel drive.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5
ASE140	Automotive Steering, Suspension and Alignment		Principles of automotive suspension and steering systems. Diagnosis, service, and repair procedures emphasis on four-wheel alignment.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5
ASE140AU	Automotive Steering, Suspension and Alignment		Principles of automotive suspension and steering systems. Diagnosis, service, and repair procedures emphasis on four-wheel alignment.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5
ASE141	Steering, Suspension and Pre-Alignment		Principles and operation of automotive suspension and steering systems.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
ASE141AU	Steering, Suspension and Pre-Alignment		Principles and operation of automotive suspension and steering systems.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE150	Automotive Brake Systems		Operation, diagnosis, service, and repair of automotive brake systems.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5
ASE150AU	Automotive Brake Systems		Operation, diagnosis, service, and repair of automotive brake systems.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5
ASE151	Introduction to Brake Systems		Fundamentals and operation of automotive braking systems. Includes training in	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			service, testing, and repair of basic brake and brake-related components.				
ASE151AU	Introduction to Brake Systems		Fundamentals and operation of automotive braking systems. Includes training in service, testing, and repair of basic brake and brake-related components.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE160	Introduction to Automotive Electrical		Automotive electrical systems foundations. Emphasis on testing and diagnosis of automotive battery, starting, and charging systems.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5
ASE160AU	Introduction to Automotive Electrical		Automotive electrical systems foundations. Emphasis on testing and diagnosis of automotive battery, starting, and charging systems.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5
ASE161	Basic Automotive Electrical/Electronics		The basic principles of automotive electricity and electrical systems.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
ASE161AU	Basic Automotive Electrical/Electronics		The basic principles of automotive electricity and electrical systems.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 2.0 2.0
ASE162	Automotive Battery, Starting and Charging Systems		The principles of operation, testing and diagnosis of automotive battery, starting and charging systems.	Prerequisites: A grade of C or better in ASE161, or permission of Instructor.		Occ	L+L 2.0 3.0 3.0
ASE162AU	Automotive Battery, Starting and Charging Systems		The principles of operation, testing and diagnosis of automotive battery, starting and charging systems.	Prerequisites: A grade of C or better in ASE161, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 2.0 2.0
ASE170	Automotive Heating, Ventilation and Air Conditioning Systems		Theory and operation of automotive heating, ventilation and air conditioning systems. Includes diagnosis, service and repair of these systems.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5
ASE170AU	Automotive Heating, Ventilation and Air Conditioning Systems		Theory and operation of automotive heating, ventilation and air conditioning systems. Diagnosis, service and repair of these systems.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ASE180	Introduction to Engine Management		Introduction to automotive engine management. Includes the construction and operating principles of automotive internal combustion engines. Focus on operation and diagnosis of fuel systems, ignition systems, lubrication, and cooling systems.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5
ASE180AU	Introduction to Engine Management		Introduction to automotive engine management. Includes the construction and operating principles of automotive internal combustion engines. Focus on operation and diagnosis of fuel systems, ignition systems, lubrication, and cooling systems.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5
ASE181	Introduction to Engine Performance		An introductory course in automotive engine performance as it relates to the construction and operating principles of automotive internal combustion engines, fuel systems, ignition systems, and the related lubrication and cooling systems.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
ASE181AU	Introduction to Engine Performance		An introductory course in automotive engine performance as it relates to the construction and operating principles of automotive internal combustion engines, fuel systems, ignition systems, and the related lubrication and cooling systems.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE182	Fundamentals of Automotive Fuel/Air and Ignition Systems		The theory and fundamentals of automotive fuel/air delivery and ignition systems. The proper diagnosis and repair of the fuel/air delivery and ignition systems.	Prerequisites: A grade of C or better in ASE181, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ASE182AU	Fundamentals of Automotive Fuel/Air and Ignition Systems		The theory and fundamentals of automotive fuel/air delivery and ignition systems. The proper diagnosis and repair of the fuel/air delivery and ignition systems.	Prerequisites: A grade of C or better in ASE181, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE240	Advanced Driver Assistance Systems		Principles of Advanced Driver Assistance Systems (ADAS). Diagnosis, service, and repair procedures.	Prerequisites: A grade of C or better in ASE140, or ASE140AU, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0
ASE241	Advanced Steering, Suspension and Alignment		Advanced automotive principles of suspension and steering systems. Diagnosis, service and repair procedures, with emphasis on four-wheel alignment.	Prerequisites: A grade of C or better in ASE141, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0
ASE241AU	Advanced Steering, Suspension and Alignment		Advanced automotive principles of suspension and steering systems. Diagnosis, service and repair procedures, with emphasis on four-wheel alignment.	Prerequisites: A grade of C or better in ASE141, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE251	Advanced Brake Systems		The operation, diagnosis, service and repair of advanced automotive brake systems.	Prerequisites: A grade of C or better in ASE151, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0
ASE251AU	Advanced Brake Systems		The operation, diagnosis, service and repair of advanced automotive brake systems.	Prerequisites: A grade of C or better in ASE151, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE260	Advanced Automotive Electrical		Advanced principles of automotive electronics.	Prerequisites: A grade of C or better in ASE160, or ASE160AU, or permission of Instructor.		Occ	L+L 4.0 7.5 7.5
ASE260AU	Advanced Automotive Electrical		Advanced principles of automotive electronics.	Prerequisites: A grade of C or better in ASE160, or ASE160AU, or permission of Instructor.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ASE261	Automotive Electrical Diagnostics and Repair		Principles of automotive electrical diagnostics and repair.	Prerequisites: A grade of C or better in ASE162, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0
ASE261AU	Automotive Electrical Diagnostics and Repair		Principles of automotive electrical diagnostics and repair.	Prerequisites: A grade of C or better in ASE162, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE262	Automotive Electronic Control Systems		Principles and operation of automotive electronics and electronic control systems.	Prerequisites: A grade of C or better in ASE261, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0
ASE262AU	Automotive Electronic Control Systems		Principles and operation of automotive electronics and electronic control systems.	Prerequisites: A grade of C or better in ASE261, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE263	Hybrid Vehicle Overview		Automotive hybrid vehicle design and operation. Safety practices as suggested by manufacturers for servicing hybrid vehicle.	Prerequisites: A grade of C or better in ASE101.		Occ	L+L 2.0 4.0 4.0
ASE264	Automotive Electrical/Electronic Systems III		Designed for the advanced automotive student, this course covers the automotive computer, multiple computer systems, and automotive computer networks.	Prerequisites: A grade of C or better in ASE161 and ASE162, or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
ASE265	Introduction to Electric and Hybrid Vehicles		Principles of electric drive vehicles, including electric drive, hybrid, and fuel cell electric vehicles.	Prerequisites: A grade of C or better in ASE260, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0
ASE266	Electric/Hybrid Vehicle High Voltage Batteries		This course covers the safety, operation, testing, diagnosis, and repair of electrical and hybrid high voltage batteries.	Prerequisites: A grade of C or better in ASE161 and ASE162, or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
ASE267	Electric Vehicle Operation and Diagnosis		Covers the operation and diagnosis of electric/hybrid vehicles.	Prerequisites: A grade of C or better in ASE161 and ASE162, or		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
ASE280	Engine Management		Diagnostic concepts of advanced engine management. Operation and diagnosis of engine management control systems, communication networks, and vehicle emissions.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5
ASE280AU	Engine Management		Diagnostic concepts of advanced engine management. Operation and diagnosis of engine management control systems, communication networks, and vehicle emissions.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5
ASE281	Computerized Automotive Engine Control Systems		The theory of computerized engine control systems as they relate to engine performance and emissions control.	Prerequisites: A grade of C or better in ASE261 and ASE182, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0
ASE281AU	Computerized Automotive Engine Control Systems		The theory of computerized engine control systems as they relate to engine performance and emissions control.	Prerequisites: A grade of C or better in ASE182, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE282	Advanced Engine Performance Diagnosis		Diagnosis and repair of emission and engine control systems. Emphasizes the proper diagnosis, documentation, and repair of systems faults.	Prerequisites: A grade of C or better in ASE261 and ASE281, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0
ASE282AU	Advanced Engine Performance Diagnosis		Diagnosis and repair of emission and engine control systems. Emphasizes the proper diagnosis, documentation, and repair of systems faults.	Prerequisites: A grade of C or better in ASE261 and ASE281, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
ASE290AA	Automotive Service Internship		Automotive work experience in the automotive service industry.	Prerequisites: Permission of Department or Division.	80 hours of designated work per credit. Maximum of four (4) credits can be earned by taking any combination	Occ	L+L 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					of ASE290AA, and/or ASE290AB, and/or ASE290AC; this combination may include repeats of the same suffixed course(s).		
ASE290AB	Automotive Service Internship		Automotive work experience in the automotive service industry.	Prerequisites: Permission of Department or Division.	80 hours of designated work per credit. Maximum of four (4) credits can be earned by taking any combination of ASE290AA, and/or ASE290AB, and/or ASE290AC; this combination may include repeats of the same suffixed course(s).	Occ	L+L 2.0 2.0 0.0
ASE290AC	Automotive Service Internship		Automotive work experience in the automotive service industry.	Prerequisites: Permission of Department or Division.	80 hours of designated work per credit.	Occ	L+L 3.0 3.0 0.0
ASE296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career goals (student's present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ASE296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Occ	LAB 2.0 10.0 0.0
ASE296WC	Cooperative Education		Work-college experiences that involve the combined efforts of	Prerequisites: Completion of at least		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			educators and employers to accomplish an outcome related to the career objectives of the students.	twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ASE296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to student's major or career interest or with permission of the Instructor.			
ASE298AA	Special Projects		An organized and tailored activity around the interests and needs of the individual student. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
ASE298AB	Special Projects		An organized and tailored activity around the interests and needs of the individual student. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
ASE298AC	Special Projects		An organized and tailored activity around the interests and needs of the individual student. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
ASL090AA	Speedy American Sign Language I		Introduction of techniques for communicating with deaf people using American Sign Language (A.S.L.). Expressive and receptive sign skills, manual alphabet, numbers, and basic sign vocabulary.	Prerequisites: None. ASL103 suggested but not required.	ASL090AA may be repeated for a total of five (5) credit hours.	Occ	LEC 1.0 1.0 1.0
ASL090AB	Speedy American Sign Language II		Use American Sign Language (ASL) to converse about feelings, family members, other people, clothing, events according to proper tense, and to count to one hundred.	Prerequisites: A grade of C or better in ASL090AA. Completion of prerequisites within the last	ASL090AB may be repeated for a total of five (5) credit hours.	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				three years is required.			
ASL101	American Sign Language I		Introduction of principles, methods, and techniques for communicating with deaf people who sign. Development of expressive and receptive sign skills, manual alphabet, numbers, and sign vocabulary. Overview of syntax, grammar, and culture related to American Sign Language (A.S.L.).	Prerequisites: None. ASL103 suggested as a corequisite but not required.		Occ	LEC 4.0 4.0 4.0
ASL102	American Sign Language II		Continued development of knowledge and language skills for communicating with deaf people who sign. Includes numbers, fingerspelling, and culture. Emphasis on enhancement of receptive sign skills and continued development of expressive sign skills. Application of rudimentary, syntactical, and grammatical structure stressed with continued development of sign vocabulary.	Prerequisites: A grade of C or better in ASL101 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Occ	LEC 4.0 4.0 4.0
ASL103	Introduction to the Deaf Community		History and development of American Sign Language (ASL) and English codes. Overview of education for Deaf and Hard of Hearing children. Legal rights and common adaptive devices used by Deaf and Hard of Hearing individuals.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
ASL105	Survey of the Interpreting Profession		Survey of the field of sign language interpreting. Overview of cultural, historical and sociological framework for the principles, ethics, roles, responsibilities, and standard practices of the interpreting profession.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ASL110	Fingerspelling		Introduction to fingerspelling techniques. Focus on methods, theory, and applications on receptive and expressive skills including manual alphabet production and numbers. In addition, skill development in speed, dexterity, clarity, and lexicalized fingerspelling, numeric incorporation, prefixes, suffixes, and polysyllabic words.	Prerequisites: A grade of C or better in ASL101 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Occ	LEC 3.0 3.0 3.0
ASL200	Issues and Resources		Implications of laws pertaining to educational choices and rights of deaf, deaf-blind, and hard of hearing individuals. Local, state, and national organizations, activities, and agencies affecting the deaf community.	Prerequisites: A grade of C or better in ASL102 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Occ	LEC 3.0 3.0 3.0
ASL201	American Sign Language III		Linguistics of American Sign Language (A.S.L.) including non-manual behaviors and signing English idioms with conceptual accuracy. Emphasis on practical application of A.S.L. skills, expanded vocabulary, and cross-cultural communication.	Prerequisites: A grade of C or better in ASL102 or permission of Department or Division. (ENG101 or ENG107) and (CRE101 or equivalent as indicated by assessment) suggested but not required. Completion of prerequisites within the last three years is required.		Occ	LEC 4.0 4.0 4.0
ASL202	American Sign Language IV		Advanced American Sign Language skills including continued vocabulary. Emphasis on conversational	Prerequisites: A grade of C or better in ASL201 or permission of		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			techniques in a cross-cultural framework. Continued work on conceptual accurate signing of English idioms and words with multiple meanings.	Department or Division. (ENG101 or ENG107), ASL200, and (CRE101 or equivalent as indicated by assessment) suggested but not required. Completion of prerequisites within the last three years is required.			
ASL203	American Sign Language V		Advanced study of vocabulary, classifiers, use of space, and grammatical features of American Sign Language (ASL). Includes evaluation of changes that occur in ASL as a living language. Advanced use of ASL in demonstrations, reports, and presentations	Prerequisites: A grade of C or better in ASL202. Completion of prerequisites within the last three years is required.		Occ	LEC 4.0 4.0 4.0
ASL204	Comparative Linguistics: ASL/English		A variety of topics about linguistics of American Sign Language (ASL) and English including phonology, morphology, lexicon, syntax, discourse, and language acquisition. Aspects of using sign language and how visual languages differ and are similar to spoken language.	Prerequisites: A grade of C or better in ASL202. Corequisites: ASL203. Completion of prerequisites within the last three years is required.		Occ	LEC 3.0 3.0 3.0
ASL212	Deaf Culture		Linguistic, social, educational, and political issues in deaf culture. Values and group identity issues as related to heritage and literature. Special emphasis on the cultural and philosophical attitudes shared with other minority groups.	Prerequisites: A grade of C or better in ASL202 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ASL296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify), or permission of Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor.		Occ	LAB 1.0 5.0 0.0
ASL296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify), or permission of Instructor. Corequisites: Concurrent in at least one class related to student's		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				major or career interest, or permission of Instructor.			
ASL296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify), or permission of Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor.		Occ	LAB 3.0 15.0 0.0
ASL296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify), or permission		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				of Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor.			
ASL298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
ASL298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
ASL298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
ASM104	Bones, Stones, and Human Evolution		Study of human evolution and variation; including fossil hominids and their tools, primate anatomy and behavior, human genetics, and the environment and human biology.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB] General Education Designation : Natural Sciences (General) - [SG]	Acad	L+L 4.0 5.0 5.0
ASM265	Laboratory Methods in Archaeology		Techniques of artifact. Basic archaeological research techniques; methods of report writing.	Prerequisites: None.	ASM265 may be repeated for a total of eight (8) credits hours Course Attribute(s): General Education Designation : Natural Sciences (General) - [SG]	Acad	L+L 4.0 4.0 4.0
ASM275	Forensic Anthropology	FOR275	Survey of the role of forensic anthropologists, from the crime scene to the courtroom. Course focuses on how skeletal analysis can aid in medicolegal investigations, especially by identifying aspects of the life history of unknown individuals and by reconstructing events	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB] General Education Designation	Acad	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			that took place at crime scenes. Covers both the legal aspects of forensic practice and the underlying biological basis for evidence obtained from skeletal remains. Examines applications of forensic anthropology in mass disasters, human rights investigations, and the deciphering of historic cases. Lab activities designed to illustrate techniques and principles central to the discipline.		: Natural Sciences (General) - [SG]		
ASM282AA	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASM282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
ASM282AB	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASM282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
ASM282AC	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASM282AC may be repeated for a total of six (6) credit hours. Standard grading available according	Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					to procedures outlined in catalog.		
ASM298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
ASM298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
ASM298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
AST101	Survey of Astronomy		Survey of astronomy for the nontechnical student. The history, content, and evolution of the solar system and the universe in general. Astronomical principles and instrumentation. The planets, moons, sun, comets, stars and star formation, galaxies, and cosmology.	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (General) - [SG]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
AST102	Survey of Astronomy Laboratory		Astronomical observations and exercises designed to familiarize students with the sky, telescopes, and methods used in astronomy.	Prerequisites: A grade of C or better in AST101 and permission of Instructor or Department or Division.	AST102 is a legacy course intended for those students who have previously completed the corresponding lecture course. Current MCCC students should enroll in AST101 only.	Acad	LAB 1.0 3.0 3.0
AST106	Life in the Universe	GLG106	Introduction to the search for life in the universe for the non-science major. Earth's location in space and time, nature of life, light and the spectrum, origin and history of the universe, origin of life on Earth and the possibility of life on other planets.	Prerequisites: A grade of C or better in MAT090 or MAT091 or MAT092 or completion of higher level mathematics course, or satisfactory score on	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				placement exam.			
AST107	Life in the Universe Laboratory	GLG107	Astronomy, Biology, and Planetary Science laboratory.	Prerequisites: A grade of C or better in AST/GLG106 and permission of Instructor or Department or Division.	AST/GLG107 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCC students should enroll in AST/GLG106 only.	Acad	LAB 1.0 3.0 3.0
AST111	Introduction to Solar System Astronomy		Introduction to astronomy for the non-science major. The scientific method, properties of light, astronomical instruments, our Solar System and solar systems around other stars. Includes hands-on astronomical observations and laboratory exercises.	Prerequisites: A grade of C or better in MAT092 or higher, or satisfactory score on district placement exam.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
AST112	Introduction to Stars, Galaxies, and Cosmology		Introduction to astronomy for the non-science major. Structure and evolution of stars; supernovae, black holes, and quasars; nebulae; star clusters; galaxies; cosmology, including the birth and death of the universe.	Prerequisites: A grade of C or better in MAT092 or higher, or satisfactory score on district placement exam.	AST111 is not a prerequisite for AST112. Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
AST113	Introduction to Solar System Astronomy Laboratory		Hands-on astronomical observations and exercises to supplement AST111.	Prerequisites: A grade of C or better in AST111 and permission of Instructor or Department or Division.	AST113 is a course intended for those students who have previously completed	Acad	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					the correspondi ng lecture course. Current MCCC students should enroll in AST111 only.		
AST114	Introduction to Stars, Galaxies, and Cosmology Laboratory		Hands-on astronomical observations and exercises to supplement AST112.	Prerequisites: A grade of C or better in AST112 and permission of Instructor or Department or Division.	AST114 is a course intended for those students who have previously completed the correspondi ng lecture course. Current MCCC students should enroll in AST112 only.	Acad	LAB 1.0 3.0 3.0
AST282AA	Service-Learning Experience in Astronomy		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AST282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
AST282AB	Service-Learning Experience in Astronomy		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AST282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					outlined in catalog.		
AST282AC	Service-Learning Experience in Astronomy		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AST282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
AST285	Introduction to Astrodynamics	ECE285 PHY285	Introduction to celestial mechanics and the dynamics of spacecraft navigation. Introduction to rocket propulsion and spacecraft design. Orbital and interplanetary celestial mechanics and maneuvers. Astrophysics and characteristics of the space environment. Lab is project-based, utilizing a real-time spacecraft simulation environment.	Prerequisites: A grade of C or better in ENG101 and (PHY115 or PHY121).		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
AST294	Special Topics in Astronomy		Conceptual, experimental, and computational aspects of a special topic in astronomy.	Prerequisites: Permission of Department or Division.	AST294 may be repeated for credit.	Acad	LEC 3.0 3.0 3.0
AST294AA	Special Topics in Astronomy		Conceptual, experimental, and computational aspects of a special topic in astronomy.	Prerequisites: Permission of Department or Division.	AST294AA may be repeated for credit.	Acad	LEC 2.0 2.0 2.0
AST294AB	Special Topics in Astronomy		Conceptual, experimental, and computational aspects of a special topic in astronomy.	Prerequisites: Permission of Department or Division.	AST294AB may be repeated for credit.	Acad	LEC 1.0 1.0 1.0
AST294AC	Special Topics in Astronomy		Conceptual, experimental, and computational aspects of a special topic in astronomy.	Prerequisites: Permission of Department or Division.	AST294AC may be repeated for credit.	Acad	LEC 0.5 0.5 0.5
AST298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to	Prerequisites: Permission of Program		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
AST298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
AST298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development. COMMON COMPETENCY COURSE				
ATC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
ATC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
ATC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
ATP100	Introduction to Manufacturing and Programmable Logic Controllers		Explores the origin and basic operation of programmable logic controllers (PLC) in manufacturing processes. Laboratory exercises include ladder logic programming, installation, adjustment, and testing of digital and analog sensors, signal conditioners, and basic troubleshooting concepts.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
ATP101	Introduction to Automated Systems and Robotics		An introduction to automation, distribution systems, Automated Storage and Retrieval Systems (ASRS), and the role of the manufacturing technician. Includes general manufacturing techniques, industry standards, and statistical process control.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
ATP105	Engineering Documentation		Analysis and interpretation of engineering documentation, common to manufacturing processes.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
ATP106	Industrial Electrical Systems		Safety for electrical power and control systems, DC & AC circuit analysis, DC power supplies, switches and proximity sensors, inductors and capacitors, electrical and engineering documentation & schematics, digital	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			multimeter & oscilloscope operation, solid state relays, and industrial control transformers.				
ATP111	Mechanical Systems and Maintenance		Examination of mechanical drive systems. Includes fundamentals of direct drives, belt and pulley drives, chain drives and gear drives. Explores calculating and measuring quantities such as power, speed, torque, speed and torque reduction/amplification, and backlash. Also includes hands-on experience assembling and aligning components, testing and troubleshooting systems.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
ATP115	Fluid Power		Fundamental industrial fluid power concepts including hydraulic and pneumatic installation, maintenance, and adjustments for the control of automated manufacturing systems.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
ATP130	DC Circuit Analysis		Direct current (DC) electric circuits. Ohm's law, Kirchoff's laws, series, parallel and series-parallel circuits, network theorems, fundamentals of magnetism in electric circuits.	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0
ATP135	AC Circuit Analysis		Alternating Current (AC) circuits containing resistance and reactance. Detailed coverage of AC circuit parameters, including theorems, impedance matching, and resonance.	Prerequisites: A grade of C or better in ATP130 or ELE100 or approval of Instructor.		Occ	L+L 2.0 3.0 3.0
ATP150	Fluid Power 1 - Hydraulics, Pneumatics, and Vacuum Concepts		Fundamental fluid power and vacuum for industry. Pneumatic, hydraulic, and vacuum system technologies with emphasis on assembly,	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			integration, and measurement.				
ATP160	Programmable Logic Controllers 1 - Introduction to Ladder Logic		Introductory lecture and laboratory course explores the origin and basic operation of Programmable Logic Controllers (PLC) with laboratory exercises including wiring of hardware, ladder logic programming and basic troubleshooting concepts.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ATP135 or ELC119 or permission of Program Director.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 4.0 4.0
ATP175	Introduction to Motors and Motor Controls		Introduction to direct current and alternating current (AC) motors, types of direct current (DC) and alternation motors.	Prerequisites: A grade of C or better in (ATP130 and ATP135) or ELE111.		Occ	L+L 2.0 3.0 3.0
ATP180	Programmable Logic Controllers 2 - Human-Machine Interfaces and Function Block Programming		Advanced lecture and laboratory course builds upon the foundations covered in introductory course, covering development and documentation of advanced ladder logic and function block programming, Programmable Logic Controller (PLC) control of variable frequency devices, and the installation and programming of Human Machine Interfaces (HMI).	Prerequisites: A grade of C or better in ATP160 or permission of Program Director.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0
ATP190	Industrial Robotics		Introduction to industrial robotics covering topics such as safety, operation, control technology, and programming.	Prerequisites: A grade of C or better in GTC108 or higher level math course.		Occ	LEC 3.0 4.0 3.7
ATP201	Programmable Logic Controller (PLC) Systems		Advanced lecture and laboratory course builds upon the foundations covered in introductory course, including development and documentation of advanced ladder logic and function block programming, Programmable Logic Controller (PLC) control	Prerequisites: A grade of C or better in (ATP100 and ATP106) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of variable frequency devices, PLC Networks and the installation and programming of Human Machine Interfaces (HMI).				
ATP205	Electric Motors and Controls		Examination of electrical motor control, power, and protection systems. Includes fundamentals of single and three-phase power, power, control and protection circuits. Also includes variable frequency drive (VFD), silicon controlled rectifier (SCR) control, and programmable logic controller (PLC).	Prerequisites: A grade of C or better in (ATP100 and ATP106) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
ATP210	Process Control		Introduction to instrumentation and control systems for wet type (continuous product) and dry type (discrete product) production systems. Includes process control concepts, instrumentation tag information, piping and instrumentation diagrams, level and flow sensing devices, Proportional-Integral-Derivative (PID) controllers, Programmable Logic Controllers (PLC), and final control elements.	Prerequisites: A grade of C or better in (ATP100 and ATP106) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
ATP215	Automation System Integration		Capstone course regarding the implementation of the planning, construction, adjustment, and testing of an industrial control system needed for the development of a functional automated system.	Prerequisites: A grade of C or better in (ATP201 and ATP205 and ATP210) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
ATP296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the career objectives of the students.	grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ATP296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				interest or with permission of the Instructor.			
ATP296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	LAB 3.0 15.0 0.0
ATP296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
AUT097	General Automotive Maintenance		A study of automotive systems operation and maintenance for the consumer. Purchasing service for cars and performing minor maintenance	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AUT101	Internal Combustion Engines Theory		Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AUT101AA	Internal Combustion Engines Theory		Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
AUT103AA	Automotive Electrical Systems		Basic principles and fundamentals of automotive electricity and electrical systems. Training in diagnosis, service and reconditioning procedures of automotive starting, charging, ignition, and electrical circuits and components	Prerequisites: None.		Occ	L+L 6.0 10.0 10.0
AUT103AB	Automotive and Electrical/Electronic Systems I		Designed for beginning automotive students. The principle of electricity; the mathematical computations involved with Ohm's Law; the use of meters; electrical schematics; the theory of	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			electrical components as they relate to automobiles; the diagnosis, testing, service and repair of batteries, starting systems and charging systems, lighting systems and instrumentation				
AUT103BD	Ignition Systems		Diagnosis, service, and reconditioning procedures for automotive ignition systems	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0
AUT103DA	Basic Automotive Electrical Theory		Covers introductory level automotive electrical theory. This includes shop safety and procedures, Circuits, Ohm's Law, use of meters, oscilloscopes, and other basic test equipment, as well as diagnosis of problems in and caused by electrical circuits. Repair of these problems also covered	Prerequisites: None.		Occ	L+L 1.1 2.0 2.0
AUT103DB	Automotive Batteries		Study of automotive batteries. Diagnosis, testing, service, and repair of batteries and related circuits covered	Prerequisites: A grade of C or better in AUT103DA or permission of Instructor.		Occ	L+L 0.6 1.0 1.0
AUT103DC	Automotive Charging Systems		The diagnosis, testing, service, and repair of charging systems and related components	Prerequisites: A grade of C or better in AUT103DA or permission of Instructor.		Occ	L+L 0.9 1.5 1.5
AUT103DD	Automotive Starting Systems		Covers the starting motor systems used on modern automotive vehicles including light duty trucks. Diagnosis, testing, service, and repair of starting systems and related components covered.	Prerequisites: A grade of C or better in AUT103DA or permission of Instructor.		Occ	L+L 0.6 1.12 1.12
AUT103DE	Automotive Lighting, Indicator, and Warning Circuits		Covers the operation of, diagnosis and repair of common automotive lighting, instrumentation, and warning device circuits used on the automobile.	Prerequisites: A grade of C or better in AUT103DA or permission of Instructor.		Occ	L+L 0.8 1.37 1.37

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AUT104AA	Automotive Fuel Systems		Theory and operation of fuel injection, engine control management, turbo charging and fuel systems, training in diagnosis, service and reconditioning procedures	Prerequisites: A grade of C or better in AUT103AA or AUT103AB or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
AUT105AA	Engine Performance and Diagnosis		The theory and fundamentals of automotive engine management troubleshooting and oscilloscope testing as it pertains to diagnosis and tune-up of the modern day automobile. Emphasis on interpretation of oscilloscope patterns and Scantool Data as they relate to engine performance.	Prerequisites: A grade of C or better in (AUT103AA and AUT104AA) or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
AUT106AA	Engine Overhaul and Reconditioning		Diagnostic and service skills essential to service and repair automotive internal combustion engines. Includes valve guide, seat reconditioning, cylinder block, piston, rod and crankshaft service	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0
AUT106AC	Engine Overhaul and Reconditioning: Heads and Valves		Diagnostic and service skills essential to service and repair of the cylinder head and valve train of contemporary automotive engines. Includes valve, guide, and seat reconditioning and service. Does not include block and crankshaft service	Prerequisites: A grade of C or better in AUT103AA or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
AUT106AD	Engine Overhaul and Reconditioning Block and Crankshaft		Diagnostic and service skills related to cylinder block, piston, rod and crankshaft service. Includes honing, boring and crankshaft reconditioning as well as piston and ring service. Does not include cylinder head and valve work.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
AUT107AA	Automotive Air Conditioning		The theory and principles of refrigeration	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and air conditioning. Training in diagnosis, servicing, and reconditioning procedures of automotive air conditioning systems				
AUT107AC	Automotive Air Conditioning		The theory and principles of refrigeration and air conditioning. Training in diagnosis, servicing, and reconditioning procedures of automotive air conditioning systems	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
AUT107AD	Automotive Air Conditioning		The theory and principles of refrigeration and air conditioning. Training in diagnosis, servicing, and reconditioning procedures of automotive air conditioning systems including electronic system controls.	Prerequisites: A grade of C or better in AUT103AA.		Occ	L+L 4.0 7.0 7.0
AUT108AB	Front-End Suspension, Steering, and Alignment		The fundamentals and principles of suspension and steering systems. Diagnosis, service, and reconditioning procedures. Laboratory emphasis on front-end service and alignment	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0
AUT109AA	Automotive Brake Systems		The fundamentals and principles of hydraulics and automotive braking systems. Diagnosis, service, and reconditioning procedures of automotive braking systems	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
AUT109AC	Automotive Brake Systems		Designed for beginning automotive students. Fundamentals of drum, disc, and ABS brakes. Includes training in diagnosis, testing, service, and repair	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0
AUT110AC	Automotive Power Trains		Designed for beginning automotive students. Operation, diagnosis, service, and repair of the automotive power train.	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes clutches, torque converters, standard and automatic transmissions and transaxles, front and rear drive axles, drive shafts, differentials and transfer case				
AUT123	Automatic Transmissions		Theory of operation and servicing procedures for current automatic transmissions.	Prerequisites: A grade of C or better in (AUT103AA and AUT104AA) or permission of Instructor.		Occ	LEC 6.0 4.0 4.0 LAB 0.0 6.0 6.0
AUT123AA	Automatic Transmissions		Theory of operation and servicing procedures for current domestic automatic transmissions; includes diagnostics and testing of mechanical, electrical, and hydraulic components	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0
AUT130	Automotive Quick Service		Use of standard service publications; performance of commonly used service operations following published service procedures; emphasis on good attitude development and safety habits about automotive service.	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0
AUT203	Electrical Accessories		Theory and principles of wiring diagrams, accessories circuits, turn signals, and warning systems. Circuit trouble-shooting and service of gauges, indicators, power windows and seats, deck latches, and windshield wipers. Computerized electronic devices.	Prerequisites: A grade of C or better in AUT103AA or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
AUT210	Automotive Emission Systems		Automotive emissions control systems and methods of emissions measurement. Diagnostic practices as suggested by the manufacturers and the related service of emissions control devices	Prerequisites: A grade of C or better in (AUT103AA and AUT104AA) or permission of Instructor.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AUT210AA	Automotive Emission Systems		Automotive emissions control systems and methods of emissions measurement. Diagnostic practices as suggested by the manufacturers and the related service of emissions control devices	Prerequisites: A grade of C or better in (AUT103AA and AUT104AA) or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
AUT215AA	Automotive and Electrical/Electronic Systems II		Electrical accessory circuits including horns, wipers, defoggers, automatic door locks, power mirrors, power windows and power seats. Focuses on introduction to body computers, advanced lighting circuits and instrumentation, and chassis electronic control systems. Includes training in diagnosis, testing, service, and repair.	Prerequisites: A grade of C or better in AUT103AA or AUT103AB or permission of Instructor.		Occ	L+L 4.0 7.0 7.0
AUT233	Computerized Engine Control Systems		Presents the reasons for developing and using computerized engine control systems. Explores system operation, examining each component. Emphasizes diagnosis and repair of system faults	Prerequisites: A grade of C or better in AUT103AB and AUT104AA or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
AUT240	Hybrid Vehicle Overview		Automotive hybrid vehicle design and operation. Safety practices as suggested by manufacturers for servicing hybrid vehicles.	Prerequisites: A grade of C or better in AUT130.		Occ	L+L 2.0 3.0 3.0
AUT282AA	Service-Learning Experience in Automotive		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AUT282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AUT282AB	Service-Learning Experience in Automotive		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AUT282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0
AUT282AC	Service-Learning Experience in Automotive		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AUT282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 3.0 3.0 0.0
AVC100	Introduction to Digital Arts		Foundation course in digital arts and design, with emphasis in the production of art using the computer.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
AVC103	Typography in the Digital Age		Survey of the history of typography and individual designers. Emphasis on the function of typography as an integral part of effective visual communication. Study of type anatomy, mechanics, characteristics, structure, and the principles of effective selection and the relation of copy and image in graphic design. Evaluate fonts both visually and technically and learn how to manage them.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC104	Cross-Media Marketing for Designers		Role of graphic designer in business with an emphasis on using graphic design to	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			achieve marketing and sales objectives. Variety of communication channels explored, such as print and digital and including social media, web, and mobile media.				
AVC110	Survey of Graphic Design and Visual Communication		A survey of graphic design and visual communication with an emphasis on application, history, and design processes. Tracing connections between contemporary and historical design. Apply knowledge to assemble and produce projects.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
AVC114	Digital Color		Overview of how color is perceived and utilized in a digital environment and how to ensure consistent color from capture to final output in print or online. Investigate visual solutions utilizing electronic devices for color correction, manipulation and integrity.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
AVC119	Penciling for Sequential Art		Development of observational skills as they apply to sequential art. Emphasis on techniques that showcase how characters interact with their environment and manipulate props and cartooning anatomy. Includes techniques on composing page layouts, adapting scripts and reference gathering.	Prerequisites: None. ART111, or ART116, or previous drawing experience strongly recommende d.		Occ	L+L 3.0 6.0 6.0
AVC120	Inking for Sequential Art		Development of inking materials and techniques used in sequential art. Emphasis on the types of tools used in the industry and the various means of employing them. Understanding the duties of the inker and the process of computer finishing.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AVC135	Foundations of Photojournalism		Basic technical knowledge of photographic process as applied by mass media.	Prerequisites: A grade of C or better in ART131 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC138	Commercial Photography I		Basic techniques of lighting, camera work, and reproduction of commercial photography. Cooperation with commercial art community.	Prerequisites: A grade of C or better in (ART131 or AVC142) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC139	Commercial Photography II		Advanced techniques with portfolio organization and presentation.	Prerequisites: A grade of C or better in AVC138.		Occ	L+L 3.0 6.0 6.0
AVC140	Portrait Photography		Fundamentals of portrait photography. Basic techniques of lighting, posing, design, and digital workflows applicable to the industry. Theory and practices of a portrait photography business.	Prerequisites: A grade of C or better in ART131, or AVC142, or permission of Instructor.	Digital camera with manual settings required.	Occ	L+L 3.0 6.0 6.0
AVC142	Introduction to Digital Photography		Fundamentals of digital photography. Includes camera operations, exposure techniques, introduction to digital output, and theory of digital photography.	Prerequisites: None.	Digital camera required.	Occ	L+L 3.0 6.0 6.0
AVC143	Intermediate Digital Photography		Intermediate theory and techniques of digital photography. Aesthetic awareness and personal expression from image capture through intermediate techniques in the digital darkroom. Introduction to high-resolution digital output.	Prerequisites: A grade of C or better in AVC142 or permission of Instructor.	Semi-adjustable, high-resolution digital camera is required.	Occ	L+L 3.0 6.0 6.0
AVC164	Introduction to Drawing and Digital Paint		Essential skills, concepts and use of digital media for drawing and painting. From concept to line-drawing; use of value, texture, color, lighting, space and scale elements to execute a finished rendering.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC164AC	Introduction to Drawing and Digital Paint III		Essential skills, concepts and use of digital media for drawing and painting	Prerequisites: Permission of Instructor.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to execute a finished rendering and output formats.				
AVC169	2D Media Design		Generation of two-dimensional (2D) images, designs, and media using digital and traditional methods of visual problem solving. Understanding digital and design-based techniques and workflows.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC170	3D Computer Design		Artistic manipulation of computer images. Emphasis on color and three-dimensional (3D) design in production of these images. Existing software used to generate three-dimensional art.	Prerequisites: A grade of C or better in AVC100 or AVC169 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC173	Computer Art		Introduction to the multiple elements of paint software programs using the microcomputer. Basic foundation in the use of computer techniques including color paint programs for the production of computer images. Use of electronic input and output devices.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.	Prerequisite s: A grade of C or better in ART100 or permission of Instructor.	Occ	L+L 3.0 6.0 6.0
AVC174	Electronic Color Principles		Interactive use of color for graphic communication. Color theory, color relationships and electronic color manipulation for computer graphic art, animation and multimedia.	A grade of C or better required in all prerequisites. Prerequisites or Corequisites: AVC100.		Occ	L+L 1.0 2.0 2.0
AVC175	Electronic Publishing Design I		Introduction to the multiple elements of commercial publishing using the microcomputer. Basic foundation in the use of electronic page layout techniques. Emphasis on publication design layout and concepts.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AVC177	Digital Photographic Imaging I		Introduction to multiple elements of digital imaging. Basic foundation in photographic manipulation of images, with special attention to aesthetic foundations underlying photographic composition.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC178	Digital Arts Studies		Designed for broad overview of the digital arts. Experience in digital based media, creative problem solving, design and aesthetics.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC179	Electronic Presentation Design		Introduction to the multiple elements of commercial-graphic presentation materials using the microcomputer and other advanced technologies. Basic foundation in the use of computer presentation software programs using presentation techniques. Special attention to aesthetic foundations underlying all presentation materials.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC180AC	Designer's Tools: Quark Express		Introduction to the multiple elements of Quark Express, a visual art adaptation software package using the Macintosh microcomputer. Basic foundation course in the use of electronic techniques, including appropriate input and output production devices.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
AVC180AD	Designer's Tools: Adobe Illustrator		Introduction to the multiple elements of Adobe Illustrator, a visual art adaptation software package using the Macintosh microcomputer. Basic foundation course in the use of electronic techniques, including appropriate input and	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			output production devices.				
AVC180AE	Designer's Tools: Adobe Photoshop		Introduction to the multiple elements of Photoshop software package using the microcomputer. Basic foundation in the use of electronic techniques including appropriate input and output production devices.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
AVC180AI	Designer's Tools:3-D Studio Textures		Introduction to multiple elements of 3-D studio material using DOS microcomputers. Basic foundation in the use of electronic input and output production devices.	Prerequisites: A grade of C or better in AVC/MMT18 4 or AVC284 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
AVC180AJ	Designer's Tools:3-D Special Effects		Introduction to multiple elements of 3-D studio special effects software using DOS microcomputer. Basic foundation in the use of electronic input and output production devices.	Prerequisites: A grade of C or better in AVC/MMT18 4 or AVC284 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
AVC180AK	Designer's Tools: Adobe Premiere		Basic functions and use of Adobe Premiere video editing software. Applications for computer animation, multimedia, and digital video production.	Prerequisites: A grade of C or better in AVC100. AVC/MMT18 4 is strongly recommended but not required.		Occ	L+L 1.0 2.0 2.0
AVC180AL	Designer Tools: Character Studio		Character Studio 3D-Character Animation software. Character motion, editing and blending electronic with traditional techniques.	Prerequisites: A grade of C or better in AVC100 and AVC/MMT18 4. ART116 is recommended but not required.		Occ	L+L 2.0 5.0 5.0
AVC180AM	Designer's Tools: Dreamweaver		Introduction to Dreamweaver software and Web editing process. Developing sites, automating production, Web design integration using graphics, and graphics	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			output. Learn powerful Web editing methods.				
AVC180AN	Designer's Tools: Flash		Introduction to Flash software. Basic foundation in Flash vector graphics, 2D and 3D animation and creation of full motion video with sound.	Prerequisites: A grade of C or better in (AVC180AD and AVC180AE) or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
AVC180AP	Designer's Tools: Photoshop for Multimedia		Advanced Adobe Photoshop techniques for multimedia. Foundations in imaging for animation, Web, graphics, digital video and offset graphics.	Prerequisites: A grade of C or better in AVC180AE or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
AVC180AR	Designer's Tools: Final Cut Pro		Introduction to non-linear editing using Final Cut Pro software for graphics, animation and the Web applications.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
AVC180AS	Designer's Tools: Adobe InDesign		Basic functions and operations of Adobe InDesign software. Application for graphic design, publishing, digital pre- press production and web layout.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
AVC180AT	Designer's Tools: Adobe After Effects		Introduction to Adobe After Effects software. Digital effects and motion graphics for the WEB, CD-ROM, DVD, video, film and animation.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
AVC181	Graphic Design I		Basic understanding of design principles and the stages of graphic design, with an emphasis on final product and presentation.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC182	Graphic Design II		Utilizing graphic design essentials of typography, contrast and layout to develop design solutions to problems in consumer advertising, typography and structure.	Prerequisites: A grade of C or better in AVC181 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC183	Digital Graphic Arts I		Graphic design use in microcomputer; black and white graphics, standard and color brushes, lines, shapes,	A grade of C or better required in all Prerequisites. Prerequisites		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			area fills and fonts. Application to illustration, advertising graphics, typography, and video interaction.	or Corequisites: AVC100 or permission of Instructor.			
AVC184	Digital Animation I	MMT184	The art of animation (animated sequences, special effects, titles, etc.) using the computer. Construction characters, background graphics, color, scaling, storyboard, cells, timing, editing, and surface rendering. Screening and discussion of selected animated short films and videos.	Prerequisites: A grade of C or better in (ART111 or ART116) or permission of Instructor. Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC185	3D Modeling and Animation I	MMT185	Basic concepts of 3D modeling. Anatomy of computer geometry; basic elements that make computer models- curves, surfaces, non-uniform rational basis spline (NURBS), and polygons. 3D translation, shading, materials, and rendering.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC187	Perspective Drawing for Animation		Perspective techniques for creating depth illusion as applied to principles of 3D modeling and animation. Study of size relationships, size and space variation, converging lines, vanishing points, overlapping planes. 3D lighting systems and light changes over distance.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
AVC190	Art of Web Site Design	MMT190	Introduction to design production for websites. Layout, typography and presentation style for HTML (Hyper Text Markup Language). Design of mock-ups using digital design software to produce artistic form and content for the Web using Hyper Text Markup Language (HTML), digital text, and graphics. Discussion of	Prerequisites: A grade of C or better in AVC100, or permission of Instructor. CIS133DA recommended.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			color, proportion, typography and Web-specific design principles. Emphasizes design of cross-browser compatible interfaces that optimize usability, accessibility and browser interoperability.				
AVC190AA	Art of Website Design I		Introduction to design production for websites. Layout, typography and presentation style for HTML (Hyper Text Markup Language). Design of mock-ups using digital design software to produce artistic form and content for the Web using Hyper Text Markup Language, digital text, and graphics.	Prerequisites: A grade of C or better in AVC100, or permission of Instructor. CIS133DA recommended.		Occ	L+L 1.0 2.0 2.0
AVC190AB	Art of Website Design II		Producing Web site pages, using design and Hyper Text digital text and graphics. Discussion of color, proportion, typography and Web-specific design principles.	Prerequisites: A grade of C or better in AVC100 and AVC190AA, or permission of Instructor. CIS133DA recommended.		Occ	L+L 1.0 2.0 2.0
AVC190AC	Art of Website Design III		Producing Web sites using artistic form and content. Emphasizes design of cross-browser compatible interfaces that optimize usability, accessibility and browser interoperability.	Prerequisites: A grade of C or better in AVC100 and AVC190AB, or permission of Instructor. CIS133DA recommended.		Occ	L+L 1.0 2.0 2.0
AVC191	Storyboarding and Layout		Introduction to story boarding, including film storytelling and scene presentation.	Prerequisites: A grade of C or better in ART111 or AVC187.		Acad	L+L 2.0 4.0 4.0
AVC192	Advanced Web Presentation Design		Advanced interactive application and training for Web designers and graphic artists using Quark, Illustrator, Photoshop, HTML Flash, Dreamweaver and Digital Video site optimization techniques.	Prerequisites: A grade of C or better in AVC/MMT190 or permission of instructor. AVC180AM and		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Development of design concepts for web pages that communicate and deliver Web content creatively	AVC180AN suggested but not required.			
AVC200	Animation and Interactivity		Animation and object-oriented programming concepts and techniques using industry standard authoring tools applied by the creative industry to animation productions, and interactive media. Introduction to animation and object- oriented programming concepts and techniques using industry standard authorizing tools. Includes tools used by the creative industry for animation productions and interactive media	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC201	Variable Data Printing		Understanding variable data and all areas including: design, utilizing data, cleaning and creating a database, file setup, prepress and press setup. Software used: Excel, Adobe InDesign, Acrobat.	Prerequisites: A grade of C or better in AVC175, or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC202	Media Productions I		Introduction to digital media production tools, equipment, and broadcast applications. Pre-production including script writing, storyboards, budgeting and copyright; studio and mobile production including the use of cameras, lighting, audio recording, and new media tools; post-production including media editing, transitions, titles, overlays and basic motion graphics.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.	Prerequisite s: A grade of C or better in ART100 or permission of Instructor.	Occ	L+L 3.0 6.0 6.0
AVC203	Aesthetics of Web Design		Develop portfolio-level web design projects. Emphasis on advanced elements and principles of design. Continued	Prerequisites: A grade of C or better in AVC/MMT19 0 or		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development of aesthetic awareness and personal expression. Evaluation of aesthetic principles throughout semester.	permission of Instructor.			
AVC204	Creative Design for Advertising		Focuses on the design and production of advertisement layouts and visual marketing campaigns for digital, mobile, and social channels which drive business objectives. Emphasis on terminology, analysis, and critique of advertising design, campaign methods, techniques, and the use of video across digital, mobile, and social channels.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
AVC210	Design Tools for Imagery, Production, and Publishing		Industry standard development of image manipulation, digital production, digital negatives, typography, and desktop publishing. New techniques using integrated software with multiple platform applications. Emphasis on alternative processes including: technique, aesthetics and creative imagery.	Prerequisites: A grade of C or better in AVC100 and [AVC169 or (AVC180AD, AVC180AE, and ART180AS)] and AVC181, or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC215	Advanced Electronic Publishing		Advanced use of electronic page layout techniques including in-depth styles; typography; technical documents and digital publishing interactivity.	Prerequisites: A grade of C or better in AVC175.		Occ	L+L 3.0 6.0 6.0
AVC219	Coloring, Toning and Lettering for Sequential Art		Understanding of the digital rules and programs used in coloring, toning and lettering comics, and the problems presented therein within the sequential narrative. Emphasis on rules and guidelines within the industry, and digital coloring and lettering.	Prerequisites: A grade of C or better in (AVC100 and AVC119) or permission of Instructor. AVC120 recommended.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AVC220	Publishing for the Comic Industry		Understanding of the comics industry. Includes researching, marketing, packaging, and distributing comics. Emphasis on selling and submitting to comic publishers, how to develop comics for self-publishing, promotional materials, and understanding contracts and copyrights involved in the process of publishing comics.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC221	Comics Creation		Development of a complete sequential comic, using all comics skills from beginning to end. Process includes scripting, penciling, inking, coloring or toning, lettering, and printing for publication.	Prerequisites: A grade of C or better in (AVC100 and AVC219) or permission of Instructor.		Occ	L+L 3.0 3.0 3.0
AVC227	Estimating for Digital Output		Introduction to estimating for digital output including job costing, labor/time, material and equipment costs. Focus on layout and imposition for press. Learn outside purchasing and vendor relationship management.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
AVC230	Visual Brand Design		Simulates an actual working environment which exposes students to the challenges and advantages of working in cross-functional teams. Topics include preparation for collaborative work environments, critical thinking and communication, messaging, and effectively employing marketing and design principles. Reviews logo creation and implementation, preparing online and offline collateral, creating marketing messaging	Prerequisites: A grade of C or better in (AVC100 and MKT110) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and campaigns, written and oral communication, and personal presentation skills.				
AVC232	Studio Lighting		This course covers the fundamentals of lighting techniques with studio strobes, speed lights, and continuous lighting systems. Teaches students to use different light modifiers according to situation, subject and personal vision.	Prerequisites: A grade of C or better in ART131, or AVC142, or permission of Instructor.	Camera with manual settings required of this course. AVC232 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0
AVC236	Photography Location Shooting		Practical application of camera techniques, use of lighting, and on-location shooting for post-production printing.	Prerequisites: A grade of C or better in (ART131 or AVC142) or permission of Instructor.	Film and/or Digital Single Lens Reflex (DSLR) camera is required. AVC236 may be repeated for credit.	Occ	L+L 3.0 6.0 6.0
AVC237	Fashion Photography		Practical application of photographic techniques within the fashion industry. Includes the photographing of models, garments, and accessories.	Prerequisites: A grade of C or better in (ART131 or AVC142) or permission of instructor.	Digital Single Lens Reflex (DSLR) camera is required. AVC237 may be repeated for credit.	Occ	L+L 3.0 6.0 6.0
AVC240	Cinematography and Directing for 2D/3D Animation		Essential skills, concepts and the use of virtual cameras in 2D and 3D animation environments: planning, pre-production, storyboards and pre-visualization using real-world camera principles is combined with rendering, sound and post-production in a nonlinear environment.	Prerequisites: A grade of C or better in (AVC/MMT18 4, or AVC/MMT18 5, or FMP108) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC246	Digital Fabrication	THO246	Introduction to concepts and application of computer visualization, modeling, and rapid prototyping for interdisciplinary arts. Students will design sculptures applying 3D	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			computer modeling techniques, rapid prototyping, and other available digital output devices to produce solid models.				
AVC248	Design Self Promotion		Defining career goals, and developing a self-promotional marketing plan to enter the workplace, including a resume, business card, leave behind, social media presence, interactive portfolio and printed portfolio. Understand business ethics and etiquette, artist's rights, copyright laws and contractual agreements, and develop networking, interview and communication skills.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
AVC249	Visual Communication Project Management and Workflow		Communication and coordination of digital projects from inception through completion. Emphasis on job workflow including professional communication, time management, detailed follow through and conflict resolution with stakeholders.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.	Working with Printing Industries of America and their iLearning Center, students will have the opportunity to become industry certified for the Customer Service Professional (CSP) Certification for a minimal additional cost.	Occ	L+L 3.0 6.0 6.0
AVC269AC	Digital Studio		Continued development of digital studio media with emphasis on advanced use of media techniques within a digital environment.	Prerequisites: A grade of C or better in (AVC169 or AVC170 or AVC173 or AVC179 or	AVC269AC students must have completed advanced courses in	Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				AVC192 or AVC274 or AVC284 or AVC289 or AVC291) or permission of Instructor.	the subject field.		
AVC270	Digital Photographic Imaging II		Intermediate digital photographic imaging techniques. Refinement of aesthetic awareness and personal expression.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC177.		Occ	L+L 3.0 6.0 6.0
AVC273AC	Special Topics: Multimedia Arts		Multimedia art studio course examining new and/or current topics in media and/or multimedia arts.	Prerequisites: Permission of Instructor.	AVC273AC is designed to offer special topics and/or specialized training for students in multimedia arts. Activities may also be appropriate for portfolio enhancement.	Occ	L+L 3.0 6.0 6.0
AVC274	Digital Photographic Imaging III		Advanced digital photographic imaging techniques. Advanced manipulation techniques of photographic images and time-based media. Continued development of aesthetic awareness and personal expression.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC270.		Occ	L+L 3.0 6.0 6.0
AVC279	Media Productions II		Intermediate digital media production techniques. Continued pre-production, production, and post-production skills. Exploration of types of productions including interviews, informational/how-to, marketing/product, and documentary/artistic media productions. Refinement of aesthetic	Prerequisites: A grade of C or better in AVC202 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			awareness and personal expression.				
AVC280AA	Digital Media Arts and Design Capstone		Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design.	Prerequisites: Permission of Program Director or Instructor.	AVC280AA requires 80 clock hours of designated work per credit hour.	Occ	L+L 1.0 2.0 2.0
AVC280AB	Digital Media Arts and Design Capstone		Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design.	Prerequisites: Permission of Program Director or Instructor.	AVC280AB requires 80 clock hours of designated work per credit hour.	Occ	L+L 2.0 4.0 4.0
AVC280AC	Digital Media Arts and Design Capstone		Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design.	Prerequisites: Permission of Program Director or Instructor.	AVC280AC requires 80 clock hours of designated work per credit hour.	Occ	L+L 3.0 6.0 6.0
AVC281	Graphic Design III		Advanced course in the process of graphic design and problem solving to meet customer specifications. Emphasis on steps needed to create and promote complex graphic design projects.	Prerequisites: A grade of C or better in AVC182 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC283	Digital Graphic Arts II		Advanced skill development of graphic design through use of microcomputer. Emphasis on computer design and techniques for producing all types of camera-ready advertising art for printed matter and package design. Includes illustration, typography, photo imaging, and color separation.	Prerequisites: A grade of C or better in AVC183 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC284	Digital Animation II		Elements of electronic animation with interactive text graphics, photography, sound,	Prerequisites: A grade of C or better in AVC/MMT18		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			film, and video construction.	4 or permission of Instructor.			
AVC285	3D Modeling and Animation II	MMT285	Advanced techniques for 3D modeling and computer animation. Creating and applying 2D background and 3D model textures, creating and applying special effects to models and animation, designing, modeling, and animating a digital 3D character from a character study.	Prerequisites: A grade of C or better in AVC/MMT185.		Occ	L+L 3.0 6.0 6.0
AVC286	Graphic Design IV		Continuing advanced course in the process of graphic design and problem solving to meet customer specifications. Emphasis on creating complex graphic design projects.	Prerequisites: A grade of C or better in AVC281 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC287	3D Character Animation		3D-Character modeling and animation for multimedia, film, broadcast, video games and interactive entertainment. Character motion, editing, and blending electronic with traditional techniques.	Prerequisites: A grade of C or better in AVC/MMT184 or AVC180AC. Corequisites: ART116 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC288	PDF Portable Document Format		Focuses on complexity, versatility and creation of a PDF file. Emphasis on the importance of the settings regarding color management, compression, and output. Includes fillable forms and interactive files with audio and video capabilities, editing functions, preflight abilities and security.	Prerequisites: A grade of C or better in AVC175 or permission of Instructor.	Emphasis will be on understanding how and why PDF is the most common workflow for printers.	Occ	L+L 3.0 6.0 6.0
AVC289	Computer Illustration		Introduction to the multiple elements of commercial illustration using the microcomputer. Basic foundation in the use of computer techniques including color paint and draw programs for the production of	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			commercial illustrations for publications and printed matter. Use of and output devices.				
AVC291	Digital Prepress		Introduction to fundamental concepts of digital prepress necessary for the designer to create digital documents for accurate output and reproduction.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC292	Digital Output Prepress		Introduction to prepress for digital output. Foundation of job costing and the functions of a job ticket for proper file preparation including trapping, color management, file transfers, workflow, RIPping, imposition and file proofing.	Prerequisites: A grade of C or better in AVC291 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC293	Digital Output		Emphasis on setup, operation, and maintenance of a digital press. Introduction to specialty and common substrates and inks. Instruction on quality control, troubleshooting techniques, and proper safety precautions for press, equipment, and consumables.	Prerequisites: Permission of Instructor.		Occ	L+L 3.0 6.0 6.0
AVC295KA	Art Workshop/Seminar: Graphics/Animation		Advanced level workshop/seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Occ	L+L 1.0 2.0 2.0
AVC295XA	Art Workshop/Seminar: Digital Photography		Advanced level workshop seminar in digital photography disciplines.	Prerequisites: A grade of C or better in AVC143 or permission of Instructor.	AVC295XA may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
AVC295XB	Art Workshop/Seminar: Digital Photography		Advanced level workshop seminar in digital photography disciplines.	Prerequisites: A grade of C or better in AVC143 or permission of Instructor.	AVC295XB may be repeated for a total of eight (8) credits.	Occ	L+L 2.0 4.0 4.0
AVC295XC	Art Workshop/Seminar: Digital Photography		Advanced level workshop seminar in digital photography disciplines.	Prerequisites: A grade of C or better in AVC143 or permission of Instructor.	AVC295XC may be repeated for a total of twelve (12) credits.	Occ	L+L 3.0 6.0 6.0
AVC296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.		Occ	LAB 1.0 5.0 0.0
AVC296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				<p>be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.</p>			
AVC296WC	Cooperative Education		<p>Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.</p>	<p>Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career</p>		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				interest or with permission of the instructor.			
AVC296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.		Occ	LAB 4.0 20.0 0.0
AVC297AA	Commercial Art Internship		Digital design, development, and photographic imaging work experience in a business or industry. 80 hours of designated work.	Prerequisites: Permission of Department or Division.	AVC297AA may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 0.0
AVC297AB	Commercial Art Internship		Digital design, development, and photographic imaging work experience in a business or industry. 160 hours of designated work.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 2.0 0.0
AVC297AC	Commercial Art Internship		Digital design, development, and photographic imaging	Prerequisites: Permission of		Occ	L+L 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			work experience in a business or industry. 240 hours of designated work.	Department or Division.			
AVC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
AVC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
AVC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development.				
AVT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
AVT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
AVT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
BAW100	Nail Technology I		Introduction to basic nail services, general sciences, safety, and infection control practices in the nail care industry.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0
BAW102	Aesthetics Essentials		Introduction to the field of aesthetics including application of theory and skills to deliver an effective skin care facial treatment and client pre and post consultations. Focus on effective client communication, interpersonal skills, sanitation, Arizona laws, client care, and facial care.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0
BAW104	Hair Essentials I		Introduction to the basic theory and procedures in cosmetology hair essentials.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0
BAW105	Nail Technology II		Apply advanced techniques and continue to build on previous concepts learned in nail services, general sciences, safety, and infection control in the nail industry.	Prerequisites: A grade of C or better in BAW100 or permission of Program Director.		Occ	L+L 4.0 8.0 8.0
BAW106	Hair Essentials II		Hair-shaping techniques and chemical application procedures in cosmetology hair essentials.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0
BAW110	Advanced Aesthetics		Theory and application of advanced skin care modalities, resurfacing, and cosmetic chemistry. Hair removal techniques, makeup application, and an introduction to body treatments is also	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			included. Application of theory and skills through treatment services provided to the public. Focus on communication and documentation to create customized treatment plans and product recommendations for clients that follow all safety and infection control procedures in compliance with the Arizona Barbering & Cosmetology Board.				
BAW111	Nail Technology III		Preparation for the written and practical examinations for Arizona Barbering and Cosmetology Board licensure. Includes concepts related to nail services, general sciences, and business skills in the nail care industry.	Prerequisites: A grade of C or better in BAW105 or permission of Program Director.		Occ	L+L 4.0 8.0 8.0
BAW112	Hair Essentials		Focus on the competencies of the Cosmetologist and the Hair Stylist certificate programs and the Arizona Barbering & Cosmetology Board as an introduction to the basic theory and procedures in cosmetology hair essentials.	Prerequisites: None.		Occ	L+L 7.0 17.0 17.0
BAW114	Student Salon I		Introduction to Cosmetology Student Salon operations and client services in the Cosmetology Clinic. Focus on application of skills learned in the classroom on live and mock clients.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0
BAW115	Aesthetics Mastery		Focus on theories and performance of comprehensive professional aesthetics treatments for the public including communication and documentation to create customized	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			treatment plans and product recommendations for clients that follow all safety and infection control procedures in compliance with the Arizona Barbering & Cosmetology Board. Overview of business planning and employment in the field including marketing, job search strategies, professional development, and self promotion. Arizona Barbering & Cosmetology Board examination licensure preparation.				
BAW116	Student Salon II		Continuation of student salon with a focus on real life scenarios to serve a client and/or become a future business owner in the beauty industry.	Prerequisites: A grade of C or better in BAW114.		Occ	L+L 4.0 8.0 8.0
BAW118	Hair Stylist State Licensure		Preparation for the written and practical examinations for Arizona Barbering & Cosmetology Board licensure as related to hairstyling. Focus on Arizona State testing procedures for the written and practical examinations, as well as applicable Arizona State laws for a Hairstylist. Final salon business practices and services.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0
BAW119	Nail Essentials		Introduction to nail services in the beauty industry. Focus on knowledge and skills of providing nail services on actual clients in a salon setting.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0
BAW120	Massage Therapy Basics		Introduction to massage therapy. Includes sanitation, hygiene, safety, contraindications, ethics, healthy therapeutic relationships,	Prerequisites: None.		Occ	L+L 3.5 7.0 7.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional communication, overview of the human body (integumentary, muscular, and skeletal systems), healthcare terminology, muscle theory, client care, self-care, and Swedish massage.				
BAW121	Massage Therapy Advanced		A massage basics course covering: sanitation, hygiene, safety, contraindications, ethics, healthy therapeutic relationships, professional communication, overview of the human body (integumentary, muscular, and skeletal systems), healthcare terminology, muscle theory, client care, self-care, and Swedish massage.	Prerequisites: None.		Occ	L+L 3.5 7.0 7.0
BAW212	Skin Essentials		Introduction to skin services in the beauty industry. Focus on knowledge and skills of providing skin services on actual clients in a salon setting.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0
BAW214	Student Salon III		Focus on application of cosmetology skills learned in the live salon setting to perform services with limited instructor assistance. Industry readiness and preparation to perform services in the chosen field of expertise after licensure with the Arizona Barbering & Cosmetology Board.	Prerequisites: A grade of C or better in BAW116.		Occ	L+L 4.0 8.0 8.0
BAW218	Cosmetology State Licensure		Preparation for the written and practical examinations for the Arizona Barbering & Cosmetology Board licensure. Focus on Arizona state testing procedures for the written and practical examinations, as well as	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Arizona state laws for a cosmetologist. Final salon business practices and services.				
BAW220	Massage Therapy Mastery I		Advanced anatomy and massage. Focuses in detail on the skeletal and muscular components and manipulations of the upper body. Includes review of bones and muscles of the upper body and the kinesiology that develops from their interactions. Practical application of advanced anatomy in deep-tissue massage for the upper body. Emphasis on the integration of deep tissue, Thai massage, myofascial, and structural massage. Introduction to Subjective, Objective, Assessment, and Plan (S.O.A.P.) notes.	Prerequisites: A grade of C or better in BAW121 or permission of Program Director.		Occ	L+L 3.5 7.0 7.0
BAW221	Massage Therapy Mastery II		Advanced anatomy and massage. Focus on the skeletal and muscular components and manipulations of the lower body. Review all of the bones and muscles of the lower body and the kinesiology that develops from their interactions. Practical application of advanced anatomy in deep-tissue massage for the lower body. Includes client assessment, treatment planning, and documentation for clients with common needs and clients with unique needs (such as athletes, expecting mothers, infants, older adults, obese individuals, people with disabilities, and end of life care). Also includes entrepreneurial skills	Prerequisites: A grade of C or better in BAW220 or permission of Program Director.		Occ	L+L 3.5 7.0 7.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			conductive to the industry of massage therapy.				
BAW298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
BAW298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
BAW298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			learning to be combined to maximize student development.				
BHS150	Introduction to Behavioral Health and Social Services		Survey of the behavioral health and social services professions, including scope of practice and training requirements. Exploration of employment opportunities in the field and self-assessment/academic planning for a career in mental health. Overview of mental health disorders and first responder skills in a mental health crisis situation.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Social-Behavioral Sciences - [SB]	Occ	LEC 3.0 3.0 3.0
BHS155	Professional Resiliency and Well-Being		Exploration of building human resilience and well-being to prevent burnout, traumatic stress, and compassion fatigue for social services and mental health professionals, healthcare providers, emergency first responders, and other relationship-intense occupations. Causes, symptoms, and effects of traumatic stress, burnout compassion fatigue and other work-related stress. Focus on enhancing quality of life and improving a healthy lifestyle by incorporating evidenced-based practices in psychological and emotional resilience training, cognitive behavioral therapy, mindfulness, positive psychology, prevention, peer support, and self-care, including nutrition, exercise, and sleep.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS160	Ethical, Legal, and Professional Issues		Explores relevant ethical, legal, and professional issues	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	in Counseling Services		inherent in the behavioral health and social services field, including expectations of and limitations on providers. Key areas of inquiry include boundaries and dual relationships, mandated reporting, confidentiality, scope of practice, beneficence and non-maleficence, rights and responsibilities, professional relationships, and credentialing/regulating agencies.				
BHS165	Applied Therapeutic Communication Skills		Theory and practice of communication skills to establish and maintain effective helping relationships and enhance the therapeutic alliance. Emphasis on verbal communication, nonverbal communication, paraverbal communication, rapport building, empathetic and active listening skills, resolving interpersonal conflicts, appropriate feedback, and developing and maintaining personal and professional relationships.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS170	Case Management and Clinical Documentation		Overview and application of the principles, practices, and function of case management in human services. Case management service delivery and coordination for clients with psychological, developmental, and psychiatric and comorbid medical conditions. Documentation techniques necessary to maintain clinical records	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			in a variety of behavioral healthcare settings.				
BHS175	Trauma-Informed Care and Recovery Treatment		Comprehensive overview of various types of trauma, neurobiological effects of traumatic stress, and ethics associated in working with a trauma survivor. Concepts and skills needed to become a fully functioning trauma-informed caregiver professional in the mental health and primary care setting.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS180	Child, Family, and Adult Advocacy		The role of advocacy in relation to multiple systems affecting children, families, and adults. Emphasis on identifying appropriate supports, community resources, and "wrap-around" services to help foster healthy family and child development, adult recovery, and social welfare.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS185	Cultural Competence in Behavioral Health		Exploration of cultural diversity and its potential impact on behaviors, emotions, cognitions and perceptions, relationships, and values. Intercultural communication skills through the examination of cultural and racial diversity, sexual and gender identity, social justice, and religious and spiritual diversity. Consideration of its implications for the therapeutic process and the importance of self-awareness and effective communication skills for professionals in the behavioral health and social sciences.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS190	Supervised Practice in Behavioral Health and Human Services		Supervised, entry-level work-based experience in mental health, social service, or a related	Prerequisites: A grade of C or better in BHS150, or		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			behavioral health care provider setting. 80 hours of designated volunteer or paid work-based learning.	BHS155, or BHS160, or permission of Department or Division.			
BHS205	Introduction to Individual Counseling Theories		Introduction to the major evidence-based therapeutic models and interventions in social and behavioral sciences. Defines the key concepts, techniques and procedures of each theoretical model.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS210	Addictions, Substance Use Disorders, and Recovery		Introduction to the historical and current developments in the field of addiction, as well as sociological, psychological, and physiological aspects of addictive behaviors and substance use. Introduces contemporary treatment methods within addiction practice, including self-help groups, levels of care, symptom identification, and models of prevention, and intervention. Examines factors that predict relapse and support recovery.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS215	Introduction to Group Therapy		Overview of the methods and techniques for influencing change in group settings. Examination of theories and concepts essential to provision of group counseling in behavioral health and addiction settings.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS216	Group Process		Evaluate and demonstrate the methods and techniques for influencing change in group settings.	Prerequisites: A grade of C or better in BHS151 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
BHS220	Introduction to Integrated Behavioral Healthcare		Introduction to key concepts related to the provision of integrated health care services, as	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			well as role of wellness and prevention in community health services. The course will introduce students to the theory and clinical practice of integrated behavioral health in primary care, as well as evidence-based approaches to promote wellness in individuals and communities.				
BHS230	Crisis and Trauma Stabilization		Theoretical and applied foundation designed for behavioral health service providers working with people in crisis. Examines the phenomena and dynamics of crises and emergencies, as well as the related strategies/modalities.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS235	Emergency Mental Health Crisis Response and Recovery		Comprehensive study of natural and human-caused disasters and their effects on the trauma survivor. Introduction to basic emergency mental health interventions to help stabilize those experiencing crisis following critical incident disasters.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS251	Harm Reduction in Addiction, Substance Use, and Social Services		Introduction to harm reduction principles, policies, programs, and practices that aim to reduce the adverse health, social and economic consequences of the use of legal and illegal drugs. This course will introduce behavioral health and social service providers as well as paraprofessional counselors to the theory and practice of harm reduction strategies in addiction, social service, and community settings.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS255	Health and Wellness Coaching in		Comprehensive overview of the art,	Prerequisites: A grade of C		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Professional Resiliency		science, and role of coaching and teaching resiliency for the following issues: personal and work-related stress, burnout, traumatic stress, and compassion fatigue. Develop pedagogical techniques and practical application of evidence-based interventions in biobehavioral self-regulation, mindfulness, cognitive restructuring, positive psychology, peer support, and holistic self-care. Designed to develop skills as a health and wellness coach in professional resiliency for enhancing health and quality of life.	or better in BHS155.			
BHS262	Behavioral Health Service Techniques for the Elderly		Specific counseling skills and appropriate intervention strategies for working with the elderly. Focus on the particular psychological, sociological and physical problems of this age group.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS266	Violence and Abuse Services		Techniques, strategies, and treatment modalities necessary for the helping professional working with the victims and perpetrators of violence and abuse.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS267	Introduction to Play Therapy		Exploration and application of therapeutic play techniques and strategies for the helping professional working with children.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS269	Grief Support Techniques		Techniques, strategies, and treatment modalities necessary for the helping professional working with the bereaved and others affected by traumatic loss.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
BHS271	Developmental Disabilities Assistance Training		Introduction to the field of developmental disability assistance. Also includes common causes of developmental disabilities, treatments and other behavioral conditions that may affect such individuals.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS272	Child and Adolescent Mental Health and Interventions		Strategies for training and reinforcing positive interaction with children. Covers behavior management strategies and techniques to prevent behavioral problems, replace behaviors and manage consequences.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS275	Infant and Early Childhood Mental Health		Foundational knowledge of mental health during infancy and early childhood. Exploration of social-emotional development and relational influences on mental health. Emphasis on identifying early warning signs, making appropriate referrals, and employing a multidisciplinary child and family team approach to services.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS281	Introduction to Art Therapy		Exploration of the process, dynamics and objectives of the therapeutic art experience. Emphasis on Art Therapy from both the psychological and artistic perspectives. Highlights topics in the history, theory and practice of Art Therapy.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BHS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
BHS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
BHS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
BHS300	Research Methods for Evidence-Based Practice		Overview of the uses, limitations, and ethics of research methodology in the behavioral sciences, and the qualitative and quantitative methods associated with common research designs. Prepares students to conduct evaluations of literature published research, use empirical evidence as the basis for interventions, and evaluate the effectiveness of their own interventions. Focuses on applications of descriptive and inferential statistics using statistical software.	Prerequisites: A grade of C or better in PSY230, or permission of Instructor.		Acad	L+L 4.0 4.0 4.0
BHS310	Fundamentals of Family Systems Counseling		Study of the family as a system and the concepts and principles applicable to helping individuals from a systemic perspective. Examines family processes, including functional and dysfunctional patterns, difficulties that families may experience as they move through their developmental stages, and the family's interactions with individuals and communities. Introduction to family systems theory as it applies to the predominant models of family therapy.	Prerequisites: A grade of C or better in BHS205, or permission of Instructor or Department.		Acad	LEC 3.0 3.0 3.0
BHS320	Behavioral Development Across the Lifespan		Critical analysis of human development throughout the lifespan, including physical, cognitive, emotional, and social development. Prepares students in the behavioral sciences to conceptualize clients through a developmental perspective. Overview of both normal human development and	Prerequisites: A grade of C or better in BHS262 or BHS272 or BHS275, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			developmental psychopathology. Focus on child, adolescent, and adult development through the study of major theories and models, with implications for helping professionals.				
BHS340	Psychopathology Across Cultures		Overview of the scientific study of mental illness and substance use disorders (psychopathology). Evaluates theories of psychopathology from sociological, psychological, and behavioral perspectives. Examines the most prevalent categories of mental disorders from several different theoretical and treatment perspectives. Focus on diagnostic features, etiology, epidemiology, prognosis, and treatment issues related to various psychiatric disorders. Legal, ethical, and cultural issues pertaining to psychopathology also discussed, in addition to prevention and intervention strategies.	Prerequisites: A grade of C or better in (BHS150 and BHS185), or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
BHS385	Multicultural Approaches to Behavioral Health Care		Advanced application of multicultural competencies, focusing on necessary awareness, knowledge, and skills needed in behavioral health settings. Examination of the dimensions of personal identities and intersectionality in the conceptualization, planning, and implementation of interventions in human services fields.	Prerequisites: A grade of C or better in BHS185, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
BHS400	Biological and Environmental Bases of Behavior		Examination of human behavior from biophysiological, psychosocial-cognitive, and social-cultural	Prerequisites: A grade of C or better in BIO160, or		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			perspectives using relevant theories. Focuses on the nervous system, brain function, and cognition, as well as the role of psychopharmacology in behavioral healthcare.	permission of Instructor.			
BHS410	Co-Occurring Substance Use and Mental Disorders		Advanced instruction in co-occurring behavioral health and substance use disorders from the bio-psycho-social model for application in the behavioral health field. Includes philosophies and practices of empirically supported models. Emphasis on causes, consequences, assessment, treatment, recovery, and harm reduction.	Prerequisites: A grade of C or better in (BHS210 and BHS340), or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
BHS420	Relational Approach to Trauma		Exploration of the science of trauma and recovery within the family context. Includes the dynamic elements of trauma treatment with the integration of systemic and family treatment models. Examines the lifelong impact of traumatic stress and complex trauma during the early years of life. Focus on evidence-based treatment and interventions from a family theory perspective for individual, relational, and systematic traumatization.	Prerequisites: A grade of C or better in BHS175, or permission of Instructor or Department.		Acad	LEC 3.0 3.0 3.0
BHS430	Concepts and Principles of Applied Behavior Analysis		An in-depth consideration of the scientific theories, concepts, and principles of understanding and modifying behavior. Focus on applying behavior analysis for data-based decisions to resolve challenging behaviors and foster prosocial behaviors.	Prerequisites: A Grade of C or better in (BHS205 and BHS320), or permission of Instructor or Department.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Students will learn basic principles and procedures, such as functional behavior assessment, assessment of reinforcers, and implementation of a behavior intervention plan to reach socially meaningful outcomes.				
BHS490	Advanced Supervised Practice in Behavioral Health and Human Services		Advanced, supervised work experience in mental health, social service, or a related behavioral health care provider setting. 160 hours of designated volunteer or paid work-based learning.	Prerequisites: AAS in Behavioral Health Sciences or permission of Instructor.		Acad	LAB 2.0 2.0 0.0
BIO100	Biology Concepts		Introductory course covering basic principles and concepts of biology. Methods of scientific inquiry and behavior of matter and energy in biological systems are explored.	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO101	Introduction to Human Genetics for Non-Majors		Study of inheritance in humans, at the organismal, cellular and molecular levels. Includes exploration of gene expression, isolation and manipulation of DNA, Mendelian genetics, pedigree analysis, as well as chromosomal abnormalities and genetic diseases.	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO102	Cells to Systems: An Introduction to Biology for Non-Majors		Study of living things. Builds from basic molecular components to structure and physiology of cells and organ systems of animals and plants.	Prerequisites: None.	General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO105	Environmental Biology		Fundamentals of ecology and their relevance to human impact on natural ecosystems.	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					(Quantitative) - [SQ]		
BIO106	Biotechnology and Society I		Introduction to biotechnology and its impact on society. Covers applications, limitations, benefits, risks, and legal and moral issues associated with biotechnology	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
BIO107	Introduction to Biotechnology		Introduction to biotechnology and its global impact on society. Covers applications, laboratory techniques, limitations and the international economic benefits, risks, and legal and moral issues associated with biotechnology	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO108	Plants and Society		A global study of plants in relation to humans; as a source of food, fiber, drugs, and other products; for aesthetic value, survival, and energy.	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO109	Natural History of the Southwest		Study of the common plants and animals of the Southwest including their distribution, adaptation, behavior, and ecology. Introduction to basic field and laboratory techniques used in the study of natural history. Specific field problems presented dealing with plant and animal analysis and ecological interrelationships.	Prerequisites: None.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO111	Microbes and Society		A study of microorganisms and the roles they play in everyday life.	Prerequisites: None.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO116	Introduction to Animal Behavior		Scientific study of animal behavior for non-majors. Includes experimental exploration of current hypotheses for genetic and environmental influences, communication,	Prerequisites: None.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			reproductive strategies, habitat selection, and sociality.				
BIO145	Marine Biology		A survey of marine environments and their biotic communities with emphasis on the natural history of marine organisms	Prerequisites: None.	Course Attribute(s): General Education Designation s: Natural Sciences (General) - [SG]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO149AH	Field Biology: Marine Biology in Mexico		Introduction to marine experiments, marine biology, and ecology. On-site field experience in Mexico. Emphasis on observation and study of marine organisms along the shore.	Prerequisites: Permission of Instructor.	BIO149AH may be repeated for a total of three (3) credit hours.	Acad	L+L 1.0 1.34 1.34
BIO149AK	Field Biology: Ecological and Environmental Field Experience		Field expeditions in which ecological and environmental principles and concepts are observed and studied.	Prerequisites: None.	BIO149AK may be repeated for a total of four (4) credit hours.	Acad	LAB 1.0 7.0 1.0
BIO149AL	Field Biology: Ecological and Environmental Field Experience		Field expeditions in which ecological and environmental principles and concepts are observed and studied.	Prerequisites: None.	BIO149AL may be repeated for a total of four (4) credit hours.	Acad	LAB 2.0 14.0 2.0
BIO149AM	Field Biology: Ecological and Environmental Field Experience		Field expeditions in which ecological and environmental principles and concepts are observed and studied	Prerequisites: None.		Acad	LAB 3.0 21.0 1.0
BIO149AN	Field Biology: Ecological and Environmental Field Experience		Field expeditions in which ecological and environmental principles and concepts are observed and studied	Prerequisites: None.		Acad	LAB 4.0 28.0 1.0
BIO149SV	Field Biology: Ecological and Environmental Field Experience		Field expeditions in which ecological and environmental principles and concepts are observed and studied.	Prerequisites: None.	BIO149SV may be repeated for a total of eight (8) credit hours.	Acad	L+L 1.0 1.34 1.34
BIO156	Introductory Biology for Allied Health		An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental	Prerequisites: A grade of C or better in RDG100 or RDG100LL	Course Attribute(s): General Education Designation	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			concepts of cell biology, histology, microbiology, and genetics.	or higher or eligibility for CRE101 as indicated by appropriate reading placement test score. One year of high school or one-semester of college level chemistry is strongly recommende d.	: Natural Sciences (Quantitativ e) - [SQ]		
BIO156XT	Introductory Biology for Allied Health		An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell biology, histology, microbiology, and genetics.	Prerequisites: A grade of C or better in RDG100 or RDG100LL or higher or eligibility for CRE101. One year of high school or one-semester of college level chemistry is strongly recommende d.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0
BIO160	Introduction to Human Anatomy and Physiology		Principles of scientific method. Structural organization, homeostasis and control mechanisms of the body. Specific chemistry concepts. Structure and function of the major systems of the body.	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitativ e) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO181	General Biology (Majors) I		The study and principles of structure and function of organisms at the molecular and cellular levels. A detailed exploration of the chemistry of life, the cell, and genetics.	Prerequisites: A grade of C or better in RDG100, or RDG100LL, or higher, or eligibility for CRE101. One year of high school or one semester of college-level		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				biology and chemistry is strongly recommende d.			
BIO181XT	General Biology (Majors) I		The study and principles of structure and function of organisms at the molecular and cellular levels. A detailed exploration of the chemistry of life, the cell, and genetics.	Prerequisites: A grade of C or better in RDG100, or RDG100LL, or higher, or eligibility for CRE101. One year of high school or one semester of college-level biology and chemistry is strongly recommende d.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0
BIO182	General Biology (Majors) II		The study and principles of structure and function of living things at cellular, organismic, and higher levels of organization. A detailed exploration of the mechanisms of evolution, biological diversity, biology of organisms, and ecology.	Prerequisites: A grade of C or better in BIO181, or BIO181XT, or permission of Department or Division Chair.	Course Attribute(s): General Education Designation : Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 1182	Acad	LEC 4.0 3.0 3.0 0.0 3.0 3.0
BIO182XT	General Biology (Majors) II		The study and principles of structure and function of living things at cellular, organismic, and higher levels of organization. A detailed exploration of the mechanisms of evolution, biological diversity, biology of organisms, and ecology.	Prerequisites: A grade of C or better in BIO181, or BIO181XT, or permission of Department or Division Chair.		Acad	LEC 4.0 3.0 3.0 0.0 4.0 4.0
BIO192	Recitation in Biology		Discussion, guided practice and problem solving related to a topically focused area of biology.	Prerequisites: None. Corequisites: Any 100-level BIO Biology course or	BIO192 may be repeated for credit.	Acad	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
BIO194AA	Special Topics in Biology		Conceptual and research basis of a current topic in biology.	Prerequisites: Permission of Instructor.	BIO194AA may be repeated for credit.	Acad	LEC 1.0 1.0 1.0
BIO194AB	Special Topics in Biology		Conceptual and research basis of a current topic in biology. Includes integrated laboratory and/or field applications of related methodologies.	Prerequisites: Permission of Instructor.	BIO194AB may be repeated for credit.	Acad	L+L 1.0 2.0 2.0
BIO194AC	Special Topics in Biology		Conceptual and research basis of a current topic in biology. Includes laboratory and/or field applications of related methodologies.	Prerequisites: Permission of Instructor.	BIO194AC may be repeated for credit.	Acad	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
BIO195AA	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.	Prerequisites: A grade of C or better in (BIO181 or CHM151 or PHY111) or permission of Instructor.	BIO195AA may be repeated for credit.	Acad	L+L 1.0 2.0 2.0
BIO195AB	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students	Prerequisites: A grade of C or better in (BIO181 or CHM151 or PHY111) or permission of Instructor.	BIO195AB may be repeated for credit.	Acad	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.				
BIO195AC	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.	Prerequisites: A grade of C or better in (BIO181 or CHM151 or PHY111) or permission of Instructor.	BIO195AC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
BIO201	Human Anatomy and Physiology I		Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system.	Prerequisites: (A grade of C or better in BIO156 or BIO156XT or BIO181 or BIO181XT or one year of high school biology) and a grade of C or better in RDG100 or RDG100LL or higher or eligibility for CRE101. CHM130 or higher or one year of high	Course Attribute(s): General Education Designation : Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 2201	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				school chemistry suggested but not required.			
BIO201XT	Human Anatomy and Physiology I		Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system.	Prerequisites: A grade of C or better in (BIO156, or BIO156XT, or BIO181, or BIO181XT, or one year of high school biology) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101). CHM130 or higher or one year of high school chemistry suggested but not required.	Course Attribute(s): General Education Designation : Natural Sciences (General) - [SG]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0
BIO202	Human Anatomy and Physiology II		Continuation of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance.	Prerequisites: A grade of C or better in BIO201 or BIO201XT.	Course Attribute(s): General Education Designation : Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 2202	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO205	Microbiology		Study of microorganisms and their relationship to health, ecology, and related fields.	Prerequisites: A grade of C or better in (BIO156, or BIO156XT, or BIO181, or BIO181XT, or one year of high school biology) and (RDG100, or RDG100LL, or higher, or	Course Attribute(s): General Education Designation : Natural Sciences (General) - [SG] Arizona Shared Unique Number	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				eligibility for CRE101). CHM130 or higher or one year of high school chemistry suggested but not required.	SUN# BIO 2205		
BIO208	Nucleic Acid Methods		Intensive introduction to laboratory methods for the isolation, purification, manipulation analysis and quantification of nucleic acids.	Prerequisites: A grade of C or better in [ABS173 and ABS175 and (BIO156 or BIO181)] or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
BIO209	Biomolecular Separation		Introduction to industrial laboratory biotechnology with intensive focus on the recovery of heterologous proteins and other biomolecules from cultivated cells and the subsequent recovery, purification and characterization of these molecules.	Prerequisites: A grade of C or better in [ABS173 and ABS175 and (BIO156 or BIO181)] or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
BIO210	Advanced Lab Instrumentation		Provides training in the principles, operation and interpretation of data from laboratory instrumentation.	Prerequisites: A grade of C or better in BIO208, or BIO209, or permission of Instructor.		Acad	L+L 3.0 6.0 6.0
BIO211AA	Biotechnology Seminar: Biomedical Applications		Special topics in biotechnology with an emphasis on current issues not covered in other life science courses	Prerequisites: None.	BIO211AA may be repeated for a total of two (2) credit hours	Acad	LEC 1.0 1.0 1.0
BIO211AB	Biotechnology Seminar: Laboratory Protocol		Special topics in biotechnology with an emphasis on current issues not covered in other life science courses	Prerequisites: A grade of C or better in BIO211AA or permission of Instructor.	BIO211AB may be repeated for a total of two (2) credit hours	Acad	LEC 1.0 1.0 1.0
BIO211AE	Biotechnology Seminar: Business and Regulatory Issues		Selected topics in biotechnology with an emphasis on current issues not covered in other life science courses.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
BIO213	Biotechnology Refresher		Opportunity for students who need more practice with biotechnology laboratory techniques to review their skills.	Prerequisites: A grade of C or better in (BIO208 or BIO209) and permission of Program Director.	BIO213 may not be substituted for any of the prerequisite courses or BIO210 in satisfaction of degree requirements. BIO213 may be repeated for a total of four (4) credit hours.	Acad	L+L 2.0 6.0 6.0
BIO215AB	Biotechnology Internship		Internship experience in a biotechnology laboratory. Setting, achieving, and evaluating goals for hands-on learning experience in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory.	Prerequisites: A grade of C or better in (BIO208 or BIO209 or BIO213) and permission of Program Director.	BIO215AB requires 160 clock hours in the laboratory setting. BIO215AB may be repeated for a total of six credit hours.	Acad	LAB 2.0 2.0 0.0
BIO215AC	Biotechnology Internship		Internship experience in a biotechnology laboratory. Setting, achieving, and evaluating goals for hands-on learning experience in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory.	Prerequisites: A grade of C or better in (BIO208 or BIO209 or BIO213) and permission of Program Director.	BIO215AC requires 240 clock hours in the laboratory setting. BIO215AC may be repeated for a total of six credit hours.	Acad	LAB 3.0 3.0 0.0
BIO220	Biology of Microorganisms		Detailed study of microbial cells, their structure, genetics, physiology and taxonomy.	Prerequisites: A grade of C or better in BIO181. Corequisites: (CHM152 and CHM152LL) or (CHM154 and CHM154LL).		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
BIO234	Fundamental Evolutionary Biology		Fundamentals of evolutionary theory including natural selection, adaptation, species concepts, speciation, extinction, basics of phylogenetics, molecular and population genetics, and the evolution of sex and sociality.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: BIO182 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
BIO240	General Genetics		In depth examination of the field of genetics.	Prerequisites: A grade of C or better in BIO181, or BIO181XT, or permission of Instructor.		Acad	LEC 4.0 4.0 4.0
BIO241	Human Genetics		An introduction to the basic concepts of human heredity and cytogenetics including Mendelian, molecular, and population genetics	Prerequisites: A grade of C or better in BIO100 or BIO181 or equivalent or permission of Instructor.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO249	Applied Biosciences: Biotechnology Internship		Internship/work experience in a biotechnology laboratory. Setting, achieving, and evaluating goals for hands-on learning experiences in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory.	Prerequisites: Permission of Instructor.	BIO249 requires a minimum of 320 clock hours in the biotechnology laboratory setting.	Acad	LAB 4.0 4.0 0.0
BIO254	Entomology		Form, activities, and classification of insects.	Prerequisites: One semester of college-level biology or equivalent or permission of Instructor.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
BIO270	Sustainable Biological Systems		Course to introduce concepts in Ecology covering abiotic and biotic systems, population biology and ecology, community ecology, biotic	Prerequisites: A grade of C or better in BIO181.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			communities, disturbance and succession, biogeography, fire ecology, evolution in changing environments, human population biology, and issues in ecology.				
BIO276	Scientific Diving		Theory and practice of underwater research using snorkel and self-contained underwater breathing apparatus (SCUBA). Advanced diving skills, data acquisition and processing, and planning an underwater study.	Prerequisites: A grade of C or better in PED101SU or PED201SU (any certification card from a nationally recognized agency.) BIO145 or BIO181 recommended but not required.		Acad	L+L 3.0 4.0 4.0
BIO282AA	Service-Learning Experience in Biology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	BIO282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
BIO282AB	Service-Learning Experience in Biology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	BIO282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
BIO282AC	Service-Learning Experience in Biology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	BIO282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
BIO283	Bioinformatics and Scientific Computing	CSC283	Introduction to bioinformatics, including history, concepts, major genetic databases and access tools. Computer software and techniques for analyzing one nucleotide or protein sequence, searching for similar sequences, and aligning and comparing two or multiple sequences. Microarray analysis and phylogenetic trees. Application of standard software to bioinformatic computing tasks, including word processing of reports, and use of spreadsheets for statistical analysis and graphing. Text editors, Unix, Internet web site searching and construction, and ethics.	Prerequisites: A grade of C or better in [(BIO156 or BIO181) and (MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+ or higher)], or permission of Instructor or Department/ Division Chair. Concurrent enrollment in, or previous completion of BIO208 is strongly suggested but not required.		Acad	L+L 3.0 4.0 4.0
BIO290AA	Biology Internship		Internship experience with a public or private agency, non-profit organization or special interest group related to some aspect or application of biology.	Prerequisites: Permission of Instructor.	BIO290AA requires a minimum of 80 clock hours in the internship setting. BIO290AA may be repeated for a total of two (2)	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					credit hours.		
BIO290AB	Biology Internship		Internship experience with a public or private agency, non-profit organization or special interest group related to some aspect or application of biology.	Prerequisites: Permission of Instructor.	BIO290AB requires a minimum of 160 clock hours in the internship setting. BIO290AB may be repeated for a total of four (4) credit hours.	Acad	LAB 2.0 2.0 0.0
BIO290AC	Biology Internship		Internship experience with a public or private agency, non-profit organization or special interest group related to some aspect or application of biology.	Prerequisites: Permission of Instructor.	BIO290AC requires a minimum of 240 clock hours in the internship setting. BIO290AC may be repeated for a total of six (6) credit hours.	Acad	LAB 3.0 3.0 0.0
BIO292	Advanced Recitation in Biology		Discussion, guided practice and problem solving related to advanced topics in biology.	Prerequisites: None. Corequisites: Any 200-level BIO Biology course or permission of Instructor.	BIO292 may be repeated for credit.	Acad	L+L 1.0 1.0 1.0
BIO294AA	Special Topics in Biology- Advanced		Advanced evidence-based study of a current topic in biology from a research and theoretical perspective.	Prerequisites: Permission of Instructor.	BIO294AA may be repeated for credit.	Acad	LEC 1.0 1.0 1.0
BIO294AB	Special Topics in Biology-Advanced		Advanced evidence-based study of a current topic in biology from a research and theoretical perspective. Includes integrated laboratory and/or field applications of related methodologies.	Prerequisites: Permission of Instructor.	BIO294AB may be repeated for credit.	Acad	L+L 1.0 2.0 2.0
BIO294AC	Special Topics in Biology-Advanced		Advanced evidence-based study of a current topic in biology from a research and theoretical perspective. Includes	Prerequisites: Permission of Instructor.	BIO294AC may be repeated for credit.	Acad	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			integrated laboratory and/or field applications of related methodologies.				
BIO295AA	Independent Research in Biology		Original scientific investigation of biological phenomenon.	Prerequisites: A grade of C or better in (BIO156 or BIO181) and permission of Instructor.	BIO295AA requires a minimum of 80 hours of independent laboratory and/or field study. BIO295AA may be repeated for credit.	Acad	LAB 1.0 1.0 0.0
BIO295AB	Independent Research in Biology		Original scientific investigation of biological phenomenon.	Prerequisites: A grade of C or better in (BIO156 or BIO181) and permission of Instructor.	BIO295AB requires a minimum of 160 hours of independent laboratory and/or field study. BIO295AB may be repeated for credit.	Acad	LAB 2.0 2.0 0.0
BIO295AC	Independent Research in Biology		Original scientific investigation of biological phenomenon.	Prerequisites: A grade of C or better in (BIO156 or BIO181) and permission of Instructor.	BIO295AC requires a minimum of 240 hours of independent laboratory and/or field study. BIO295AC may be repeated for credit.	Acad	LAB 3.0 3.0 0.0
BIO296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
BIO296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
BIO296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and	Completion of at least twelve (12) college		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			employers to accomplish an outcome related to the career objectives of the students.	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
BIO296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career interest or with permission of the Instructor.			
BIO298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
BIO298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
BIO298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
BLT101	Introduction to Construction Trades		Introduction to trade and craft apprenticeships in Arizona, including concrete, carpentry, millwright, pipefitting, steamfitting and plumbing, sheet metal, painter, decorator and drywall taper, electrician and ironworker	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
BLT120	Techniques of Building Inspection		Theory and practice of zoning, foundation, structural, mechanical and electrical inspection in modern residential and commercial construction	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BLT121	Electrical Codes		Principles of safe electrical installations and proper inspection procedures. Topics include conduit installation, transformer service, raceways, control circuits, grounding and bonding, hazardous occupancies and the National Electrical Code	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BLT122	Basic Engineering for Building Inspectors and Contractors I		Basic engineering mechanics, gravity loads, shears, bending moments, wood frame construction, deck joints, beams, columns, bracing and shear walls.	Prerequisites: A grade of C or better in BLT120 and MAT187 or equivalent or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
BLT124	Designing for the Americans with Disabilities Act(ADA)		In-depth analysis of federal standards described in the Americans with Disabilities Act (ADA). Reviews the state of	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Arizona's enforcement document (AzDAAG). Focuses on helping designers, architects, and building officials create barrier-free buildings and facilities				
BLT125	Residential Electrical Codes		National Electrical Code requirements for safe electrical installations and proper inspection procedures in residential buildings. Topics include branch circuitry, feeder calculations, services grounding, overcurrent protection, wiring methods, types and proper usage of material, swimming pool installation	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BLT126	Soil Mechanics		Soil conditions as related to modern building requirements. Topics include bearing value, classification and identification, exploration and samplings, behavior of fills, compaction, subsurface drainage, and field sampling.	Prerequisites: A grade of C or better in MAT150 or MAT151 or MAT152 or satisfactory score on District placement exam.		Occ	LEC 3.0 3.0 3.0
BLT127	Plumbing Codes		Code requirements and construction practices. Topics include underground and above ground plumbing, venting and finish plumbing	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BLT128	Mechanical Codes		Code requirements and construction practices. Topics include duct work, conductors and fuel supply, insulation, and controls	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BLT129	Materials of Construction		Fundamental characteristics of modern construction materials and the effective use of these materials in construction	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BLT131	Applied Electric Codes		National Electric Code (NEC) administration and application. NEC requirements for safe installation of system	Prerequisites: None.		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			control equipment and design of electric utilization systems. Identification of wiring systems and permitted uses. Application of NEC requirements for hazardous locations, specific occupancies, and special uses of electric equipment				
BLT132	Applied Plumbing Codes		Plumbing code administration. Application, design and installation of drainage/waste and venting systems in private and public buildings. Application of plumbing codes for design and installation of water systems	Prerequisites: None.		Occ	LEC 4.0 4.0 4.0
BLT140	Environmentally Responsible Building		An overview of environmentally responsible building and a historical survey of building methodologies. Introduces design concepts and strategies related to the mitigation of environmental impacts. Examines building processes, environmental issues and the interdependent nature of our built environment. Topics include human impacts, climate and geography, sustainability, renewable energies, water use and energy, resource efficiency, building materials, indoor air quality and waste reduction	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BLT142	Green Building Codes, Standards and Rating Systems		Surveys green building rating systems, environmental building standards and green construction codes; addresses the broader scope of public health, safety and general welfare in the context of regulations and the	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			natural environment; examines site development and land use, material resource conservation, energy efficiency, water resource conservation, indoor environmental quality, building commissioning, operation and maintenance; includes exercises demonstrating the use of tools and applying the principles discussed during the course.				
BLT191	Applied Plumbing Codes		Uniform plumbing code and plumbing systems installation requirements. Code administration as well as requirements relative to the installation and maintenance of plumbing systems.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BLT200	Construction Management: Field Operations		Skills and techniques necessary for management of construction field operations. Includes job scheduling, inspection techniques, personnel relations, safety, and the scope and supervision of the overall construction process.	Prerequisites: A grade of C or better in DFT126 and GTC121 or departmental permission.		Occ	LEC 3.0 3.0 3.0
BLT201	Construction Management: Office Operations		Develops the skills and techniques necessary for successful management of construction office operations. Includes establishing and financing the business, marketing, office operations, and relationships with other construction industry entities	Prerequisites: A grade of C or better in DFT122 or DFT126 or GTC121 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
BLT263AK	Building Codes: IBC		Designed specifically to acquaint students with safety principles of building construction under the International Building Code (IBC), including structural requirements for wood,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			masonry and concrete, fire resistance of building construction, fire resistant materials, and ratings and occupancy requirements				
BLT263AL	Building Codes: IRC		Designed specifically to acquaint students with safety principles of building construction under the International Residential Code, including structural requirements for wood, masonry and concrete, fire resistance of building construction, fire resistant materials, and ratings and occupancy requirements	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
BLT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
BLT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
BLT296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites:		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
BLT296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
BLT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
BLT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	LAB 2.0 2.0 0.0
BLT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	LAB 3.0 3.0 0.0
BME101	Introduction to Biomedical Equipment Technology		Introduces fundamental concepts of the field of biomedical equipment technology. Emphasis on the responsibilities of the technician, electrical safety, and knowledge of	Prerequisites: A grade of C or better in ELE111, BIO160 and (HCC145 or HCC145AA).		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			devices and their functions, maintenance, and repair.				
BPC100AA	Business-Personal Computers I		Introduction to the use of personal computers in the business environment. Computer hardware components, operating system functions and concepts. Running application software	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
BPC100AB	Business-Personal Computers II		Use the personal computer to create, store and retrieve information. Procedures for running and using business application software to produce documents and spreadsheets	Prerequisites: A grade of C or better in BPC100AA or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
BPC100AD	Computing Fundamentals		Fundamental computer concepts and terminology for business and personal computers	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
BPC100BD	Key Software Applications		Covers basic features of software applications for business and personal computers	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
BPC100CD	Living Online		Fundamental network and Internet concepts and terminology for business and personal computers. Covers basic features of electronic mail applications	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
BPC100DD	Internet and Computing Fundamentals		Fundamental computer and Internet concepts and terminology for business and personal computers. Covers basic features of software applications	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
BPC101	Introduction to Computers		Computer software applications for the personal computer, including electronic spreadsheet and word processing, keyboarding review, a desktop environment, database management, computer graphics and operating system commands. Individualized advanced applications of software selected to solve specific	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			problems on the personal computer.				
BPC101AA	Introduction to Computers I		Computer software applications for the personal computer, including electronic spreadsheet and word processing, keyboarding review, and a desktop environment.	Prerequisites: None.	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
BPC101AB	Introduction to Microcomputers I: Macintosh		Microcomputer software applications for the Macintosh personal computer, including electronic spreadsheet and word processing, keyboarding review, and a desktop environment	Prerequisites: None.		Occ	LEC 1.0 2.0 1.7
BPC101BA	Introduction to Computers II		Computer software applications for the personal computer, including database management, computer graphics, electronic spreadsheet, and word processing, and operating system commands	Prerequisites: A grade of C or better in BPC101AA.	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	L+L 1.0 1.0 1.0
BPC103AK	Using Word: Level I		Use of Word to create, manipulate and print documents on a microcomputer	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
BPC104AD	Using Excel: Level I		Use of Excel to create, edit, save and print worksheets	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
BPC104BD	Using Excel: Level II		Use of Excel to enhance worksheets to include graphing and formatting data, using complex formula and function expressions to build and analyze data, and special print options to output worksheets and graphs	Prerequisites: A grade of C or better in BPC104AD or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
BPC104CD	Using Excel: Level III		Use of Excel to produce worksheets utilizing macros for template development and automation of repetitious tasks, and worksheet methods for the storage and management of data.	Prerequisites: A grade of C or better in BPC104BD or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
BPC106AH	MS Outlook: Level I		Messaging and word processing functions of a	Prerequisites: None.		Occ	L+L 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Microsoft Outlook electronic work state				
BPC106BH	Microsoft Outlook: Level II		Microsoft Outlook features including sort, filter and group items; templates and forms; information sharing by public folders and Net Folders; share and fax contacts; and record activities in the Journal. Outlook environment customization also covered	Prerequisites: A grade of C or better in BPC106AH or permission of Instructor.		Occ	L+L 0.5 0.5 0.5
BPC110	Computer Usage and Applications		Introduction to business and personal computer operations and usage. Software applications for analyzing and solving business problems including word processing, spreadsheet, database, and presentation graphics	Prerequisites: None.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Occ	L+L 3.0 4.0 4.0
BPC111AA	Computer Keyboarding I	OAS111A A	Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7
BPC111AB	Computer Keyboarding II		Further development of microcomputer keyboard speed and accuracy. Emphasis on touch typing with speed and accuracy development of numerals as related to preparation and handling of documents.	Prerequisites: A grade of C or better in BPC/OAS111 AA or permission of Instructor.		Occ	L+L 1.0 1.7 1.7
BPC113	Micro-Alphabetic Indexing		Mastery of essential microcomputer filing skills. Emphasis on indexing and alphabetizing individual and business names; subject, geographic, and numeric methods; and cross-referencing.	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7
BPC119	Basic Data Entry Activities		Development of speed and accuracy of data entry skills. Includes vocabulary, keyboard drills, and data entry simulations.	Prerequisites: A grade of C or better in (BPC111AA or OAS111AA		Occ	LAB 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or OAS101AA) or permission of Instructor. OAS118 recommended but not required.			
BPC125	Microcomputer Set Up and Maintenance		How to install and maintain a microcomputer (personal computer). Steps used to set up a new or add options to a previously installed microcomputer. Installation of internal options (memory, graphics, modems, etc.), as well as external options and devices (printers, monitors, communications, etc.). Troubleshoot (identify and repair or have repaired) microcomputer problems	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
BPC128	Introduction to Desktop Publishing		Presents basic concepts of commercially prepared software used to do desktop publishing. Incorporates a combination of narrative and pictorial/graphic creation and presentation, including set-up, text entry, graphic generation, text and graphic merging, and other computer-based functions	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
BPC128AF	Introduction to Desktop Publishing: MS Publisher		Presents basic concepts of commercially prepared software used to do desktop publishing. Incorporates a combination of narrative and pictorial/graphic creation and presentation, including set-up, text entry, graphic generation, text and graphic merging, and other computer-based functions	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
BPC138AA	Windows Desktop Design and Publishing		Use of Windows based microcomputers and appropriate commercial software package to compose and print textual and graphic materials of high quality. Includes overview of micro operating system, word processing of copy, use of graphics programs, layout of design elements, and printing alternatives.	Prerequisites: A grade of C or better in CIS105 or BPC110 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
BPC160	AppleCare: Service Fundamentals		Prepares students to become certified in repairing and troubleshooting iOS or macOS devices. It prepares the students for the AppleCare Certified technician exams: Apple Certified iOS Technician (ACIT) and Apple Certified Mac Technician (ACMT). Students will learn the Apple service style for customer interactions, safety precautions, and basic troubleshooting skills.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
BPC170	A+ Exam Prep: Computer Hardware Configuration and Support		Explore technical aspects of personal computers, including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis placed on hardware installation, maintenance, mobile devices, and hardware troubleshooting. Helps prepare students for the CompTIA A+ examinations.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
BPC171	Recycling Used Computer Technology		Use of hardware maintenance knowledge and skills to refurbish used computers.	Prerequisites: A grade of C or better in BPC170 or Corequisites: BPC170 or permission of Instructor.	BPC171 may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
BPC210	Advanced Computer Usage and Applications		Advanced application of software for business and personal computers including word processing, spreadsheet, database, and presentation. Includes integration of applications and Internet	Prerequisites: A grade of C or better in BPC110 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
BPC225	Computer Configuration and Enhancement		Configuration and enhancement of a computer. Emphasis on configuration of hardware and software to optimize computer performance. Includes memory configuration and the identification and troubleshooting of configuration problems	Prerequisites: A grade of C or better in BPC125 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
BPC250	Post-Advanced Computer Usage and Applications		Post-advanced applications of software for business and personal computers including word processing, spreadsheet, database, and presentation. Includes integration of applications and Internet	Prerequisites: A grade of C or better in BPC210 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
BPC260	AppleCare iPhone Technician (ACIT) Certification		Prepares students for the AppleCare iPhone Technician Certification and to perform warranty level hardware repairs and troubleshooting Apple iOS devices.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
BPC262	AppleCare MAC Technician (ACMT) Certification		Prepares the students for the AppleCare MAC Technician certification exam and to perform warranty level hardware repairs on Apple iOS devices.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
BPC270	A+ Exam Prep: Operating System Configuration and Support		Explore advanced technical aspects of maintaining and servicing computers. Emphasis placed on OS installation, maintenance, mobile devices, security, software troubleshooting, and on proper usage of tools, safety procedures, and	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professionalism. Helps prepare students for the CompTIA A+ examinations.				
BPC274	Advanced Server Computer Maintenance: Server+ Prep		Explores the technical aspects of computer servers, including hardware installation and management; operating system configuration, access control and virtualization; and overall diagnostic and resolution of system hardware, software, connectivity, storage and security issues. Includes an emphasis on physical and network data security techniques and implementation of backup techniques to remediate disaster recoveries. Helps prepare students for the CompTIA Server+ examination.	Prerequisites: A grade of C or better in (CIS126++ and MST150++), or BPC270, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
BPC275	CompTIA Exam Prep		Focuses on reviewing key concepts, practicing skills and preparing to successfully demonstrate existing knowledge on CompTIA certification exams. The course is designed to provide an overview of exam topics, study and test-taking strategies. It also will include structured study time, group discussions, and the use of practice exams to assess test readiness.	Prerequisites: A grade of C or better in BPC170, or BPC270, or permission of the Instructor.	Students should be finishing a CompTIA class, looking for CompTIA certificate renewal, or have industry or other prior training in CompTIA topics and concepts. BPC275 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0
BPC278	Software Installation - MS Windows		Installing and configuring microcomputer software. Emphasis placed on the installation, configuration, upgrade, and related problem resolution of	Prerequisites: A grade of C or better in CIS105 or BPC114 or CIS114 (any module		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			microcomputer operating system and applications software.	whose course number suffix begins with a D) BPC117 or CIS117 (any module whose course number suffix begins with a D) and BPC170 or permission of Instructor.			
CAD100	Fundamentals of 2D AutoCAD		Utilize AutoCAD software to generate two-dimensional (2-D) drawings and components in a generic installation. Apply basic AutoCAD commands and properties to format, draw, edit, layer, dimension, import/export, and manage drawing files. Creation, manipulation, and hardcopy production of 2-D drawing files from major AutoCAD command and display environments and plot options	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
CAD101	Elements of CAD Graphics (AutoCAD)		Computer generation of drafting and design components using pure elements and basic geometric procedures. Incorporates concept illustration based on standard pictorial methods and develops multi-view projection techniques and presentation methods. Introduction to the fundamentals of three-dimensional (3D) modeling and the construction and printing of 3D objects.	Prerequisites: A grade of C or better in CAD100 or Corequisites: CAD100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
CAD105	Fundamentals of Revit Architecture		Introduction to Revit Architecture. Utilize Revit software to develop and generate	Prerequisites: A grade of C or better in CAD100 or		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			basic 3-D models and components. Create, edit, dimension, and manage 2-D and 3-D drawing views and projects. Produce drawing files and plots using various display environments and plot options.	(previous architectural and CAD experience, and permission of Department or Division).			
CAD106	Fundamentals of Civil 3D		Introduction to Civil 3D. Utilize Civil 3D software to develop and generate basic 3D models and components. Create, edit, dimension, and manage 2D and 3D drawing views and projects. Produce drawing files and plots using various display environments and plot options.	Prerequisites: A grade of C or better in CAD100 or (previous civil and CAD experience, and permission of Department or Division).		Occ	L+L 3.0 6.0 6.0
CAD120AH	Getting Started with CAD: Microstation		Basic Commands; drawing aids; input devices; use of default settings	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CAD125AH	Drawing Database Management: Microstation		Operating the system file manager. Establishing, updating, managing, and maintaining a CAD drawing database	Prerequisites: A grade of C or better in CAD120AH or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
CAD145	Design Principles for Industry		Survey of the basic standards and procedures for drawing setups and design documentation in the fields of architecture, manufacturing, and civil technology. Multi-source hard copy design presentation.	Prerequisites: A grade of C or better in (CAD100 and CAD101) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
CAD150AH	Two-Dimensional CAD: Microstation		Constructing scaled two-dimensional drawing using CAD.	Prerequisites: A grade of C or better in CAD125AH or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
CAD160	Residential Architectural Drafting		Basic skills associated with board drafting in the architectural field	Prerequisites: A grade of C or better in (CAD105 CAD110 and CAD115) or		Occ	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
CAD164	Residential Working Drawings		Team projects in the development of a set of architectural working drawings for a residence.	Prerequisites: A grade of C or better in CAD145 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
CAD165	Architectural Software (AutoCAD Architecture)		Introduction to AutoCAD Architecture, a modeling software used by architecture professionals. Procedures unique to advanced software and pertinent to architectural documentation. Emphasison residential working drawings.	Prerequisites: A grade of C or better in CAD145 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
CAD167	Architectural Drawings I (Revit): Residential CAD		Use of Revit architectural modeling software to develop 3-D architectural models, working drawings, construction documentation, and renderings. Emphasis on residential working drawings.	Prerequisites: A grade of C or better in CAD105 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
CAD186	Site Development I		Use coordinate geometry and survey point databases to create topographic maps utilizing civil engineering/surveying application software. Volumetric analysis of earthwork (cut and fills) utilizing civil engineering/surveying application software. Production of base mapping, earthwork, grading, and drainage plan utilizing civil engineering/surveying application software.	Prerequisites: A grade of C or better in CAD106 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
CAD201	Three-Dimensional (3D) Modeling and Advanced CAD Techniques		Advanced Computer Aided Drafting (CAD) techniques including the automation and semi-automation of design documentation, external referencing and attribute creation and manipulation.	Prerequisites: A grade of C or better in (CAD100 and CAD101) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Development of three-dimensional (3D) models including construction, manipulation, rendering and 2D/3D output.				
CAD235	Modeling, Rendering and Animation for Technical Presentations		Entry level course in technical modeling, visualization, and animation. Uses 3D modeling software, rendering, and animation tools to visualize and solve design issues. Development of professional quality presentation materials for design projects.	Prerequisites: A grade of C or better in CAD201 or Corequisites: CAD201 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
CAD256	CAD Customization and Management		Emphasis on developing customized user interfaces and basic programming skills. Installation and configuration of software processes. File management techniques; file archival, batch plotting, file conversion, and CAD standards.	Prerequisites: A grade of C or better in DFT254AA or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
CAD265	Architectural Software (AutoCAD Architecture) II: Commercial CAD		Use of AutoCAD Architecture, an architectural modeling software to generate features associated with commercial building design. CAD treatment of selected details and other structural practices common to nonresidential buildings. Emphasis on the practices and standards of working drawings.	Prerequisites: A grade of C or better in CAD165.		Occ	L+L 3.0 6.0 6.0
CAD267	Architectural Drawings (REVIT) II: Commercial CAD		Use of REVIT architectural modeling software utilized by the architectural industry to generate plans and features associated with commercial building design. Focus on CAD development of selected plans, details, and structural practices common to nonresidential buildings.	Prerequisites: A grade of C or better in CAD167 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CAD269	Computer Aided Landscape Design	AGL269	Using AutoCAD to create landscape design drawings and wire frames in Sketchup for elevations, sections and perspective sketches.	Prerequisites: A grade of C or better in : (AGB139 or CAD100 or CAD101) and AGL189 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
CAD274	Residential Design CAD		Developing designs with plans and details based on current design vogues. CAD problem solving associated with design	Prerequisites: A grade of C or better in (CAD152 and CAD164) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
CAD282	HVAC and Sheet Metal Design		Drawing, design, and specification of heating, ventilating, and air conditioning (HVAC) systems. Basic types of heating and cooling systems, heat loss calculations, sheet metal development, and solar design	Prerequisites: A grade of C or better in (CAD150 and [two of CAD262 CAD264 CAD266 CAD268]) or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
CAD286	Site Development II		Use a coordinate geometry and survey point database to create construction drawings utilizing civil engineering/surveying software.	Prerequisites: A grade of C or better in CAD186.		Occ	L+L 3.0 6.0 6.0
CAD287	Advanced Revit Techniques		Advanced use of Revit architectural modeling software utilized by the architectural industry. Develop custom families with parameters and formulas, generate conceptual mass plans, prepare design phasing for renovation and tenant improvement projects, and work with advanced features associated with architectural building design.	Prerequisites: A grade of C or better in CAD167 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
CAD292	Current Developments in CAD Technology		The exploration and analysis of the newest software packages and/or plug-ins on the market designed to enhance or replace existing Computer Aided	Prerequisites: A grade of C or better in CAD100 or permission of Department or Division.	DFT292 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Drafting (CAD) software. Designed to introduce and develop skills in the latest state-of-the-art tools pertinent to industry today.				
CAN101	Introduction to Cannabis Industry		Introductory overview of the cannabis industry. Explores the historical, legal, social, and political aspects of cannabis use, cannabis careers and business management, including business plans, for the cannabis industry. Includes how industry trends and regulations have influenced supporting industries and consumer behaviors.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CAN105	Accounting, Finance and Funding in the Cannabis Industry		Overview of the cannabis industry's financing, funding, accounting, and tax practices. Includes capital ventures and accounting procedures unique to the cannabis industry.	Prerequisites: A grade of C or better in CAN101.		Occ	LEC 2.0 2.0 2.0
CAN110	Social Equity and Current Issues in the Cannabis Industry		Social equity programs, trends, current issues and the societal impact in the cannabis industry.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
CAN115	Human Resources and Operations Management in the Cannabis Industry		Overview of the human, facilities and capital management of the cannabis industry. Includes workforce development trends and best practices unique to the cannabis industry.	Prerequisites: A grade of C or better in CAN101.		Occ	LEC 1.0 1.0 1.0
CAN120	Legal and Regulatory Environment in the Cannabis Industry		Study of cannabis industry laws, policies, regulations and ethics in non-use, medicinal-use, and adult-use U.S. states and territories.	Prerequisites: A grade of C or better in CAN101.		Occ	LEC 3.0 3.0 3.0
CAN125	Supply Chain Management in the Cannabis Industry		Management of cannabis supply chain stages including: growing, extracting, laboratory testing, product development and manufacturing, shipping and distributing,	Prerequisites: A grade of C or better in CAN101.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and dispensary and retailing across all legislative environments (federal, medicinal-use, and adult-use in U.S. states and territories).				
CAP120	Introduction to Counseling		Introduction to the field of counseling with a focus on skills and competencies needed as a mental health practitioner. Foundations of counseling including counseling theories, ethical considerations, prevention and intervention topics, and multicultural counseling practices.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CAP220	The Counselor in a Multicultural Society		Current theories and research on culture, race and ethnicity, gender and other aspects of cultural diversity in a multicultural society through the lens of counseling. Focus on personal perspectives, will explore themes, theories, topics and research related to power, privilege and oppression in the United States as applied to counseling discipline.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CAP240	Introduction to Counseling Skills		Introduction to basic skills and techniques used in the counseling field. Focuses on active listening, self-awareness, and other related skills.	Prerequisites: A grade of C or better in CAP120.		Acad	LEC 3.0 3.0 3.0
CAP260	Career and Professional Preparation for the Helping Professions		Overview of the process of career and life planning through self-awareness for students interested in helping fields. Focus on current occupational trends and outlook, the learning models of the individual, the world of work, and decision-making. Emphasis on individual application and workplace diversity.	Prerequisites: A grade of C or better in ENG101.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Design materials for use in the professional world such as resumes, online presence, career portfolio.				
CCS101	Chicana and Chicano Studies		Introduction to the wealth and diversity of Chicana and Chicano Studies research from a variety of disciplinary perspectives through the use of a series of historical and social scientific studies, novels, testimonios, and films	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
CCS111	Introduction to Chicana and Chicano Culture		A study of Chicano popular culture, including cultural themes and artistic expression. Expression of the Chicano experience in American society from the perspective of the social sciences. Analyzes Chicano self-identity and social and cultural dynamics of the Chicano community	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CCS202	Ethnic Relations in the United States	AFR202 ASB202	Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
CCS212	The Mexican American Novel		A study of the social, historical, and cultural	Prerequisites: ENG101 and		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			backgrounds as well as the form and content of the Mexican American novel.	ENH112 suggested but not required.			
CCS282AA	Volunteerism for Chicana and Chicano Studies: A Service Learning Experience		Service learning field experience within private/public agencies such as museums and libraries, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CCS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
CCS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
CCS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CCS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
CET102	Surveying II		Surveying principles including triangulation, municiple and land surveys, topographic surveys, earthwork, state plane coordinate systems, stadia methods, practical astronomy, highway curves, superelevations and construction.	Prerequisites: A grade of C or better in CON241 or permission of Department or Division.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
CET103	Construction Methods		Modern construction techniques: planning methods, critical path method (CPM), excavation and earthmoving practices, estimating and work scheduling, concrete design and placement practices. Includes reinforced concrete, prestressed concrete, carpentry, asphalt characteristics, proper proportioning of aggregate and important safety methods. Introduction to heavy construction equipment use	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CET104	Community Planning and Development		Provides a comprehensive overview of the urban planning and development process. Introduces planning theories,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			methodologies, and strategies with practical applications from local and other urban communities. Topics include municipal planning, land use and zoning, circulation, water and waste water management, storm drainage and public utility services. Examines the economic development process, environmental and legal issues and focuses on the interdependent nature of development				
CET105	Highway Technology		Economics of highway locations, rights-of-way, curves, drainage problems, bridge structures, road building equipment, highway financing, and administrative problems at the state, county and city levels	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CET150	Introduction to Geodesy and Map Projections		Coordinate frames used in geodesy, photogrammetry, surveying, and mapping. Cartesian, spherical, and ellipsoidal coordinates. Introduction to kinematics, gravity field, and size and shape of earth. Positioning in three dimensions. Introduction to map projections and associated coordinate systems. Theory and application of the plane coordinate systems with emphasis on Arizona. Development of projections from Global Positioning System (GPS) observations.	Prerequisites: A grade of C or better in (CET102 and MAT182) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
CET171	Construction Contracts		Legal aspects of construction contracts, writing and interpretation of specifications, prequalifications, and	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			use of performance bonds				
CET201	Boundary Control and Legal Principles		Principles of land surveying, boundary controls, ethical and legal principles, and office practices.	Prerequisites: A grade of C or better in CON241 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
CET202	Writing Legal Descriptions		Application of principles to actual case studies. Emphasis on proper form and clarity in legal description writing. Procedure for filing subdivision plats and preparation for land surveyors' registration examinations.	Prerequisites: A grade of C or better in CON241 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
CET205	Photogrammetry		An introduction to the study of aerial cameras, equipment, flight procedures, and interpretation of aerial photographs, including stereoscopic principles used in planimetric and topographic maps, map projections, grids, and forms. Practical applications of principles stressed	Prerequisites: A grade of C or better in CET102 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
CET211	Strength of Materials		A study of strength and application of the materials of engineering construction, including the mechanics of beams, shafts, and bolted and welded connections under various loading conditions.	Prerequisites: A grade of C or better in DFT107 or ELT102 or (MAT151 and MAT182) or MAT187 or equivalent or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
CET241	Fundamentals of Traffic Engineering		Basic study of traffic movement, ordinances, mechanical controls, planning, street and highway design, parking, and traffic engineering organization. Training for personnel as civil engineer technicians.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CET250	Public Land Survey System		Overview of unique requirements to determine land	Prerequisites: A grade of C or better in		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			boundaries according to the Manual of Instructions for the Survey of Public Lands of the United States, including history of the system, lotted sections, proportioning, subdividing, and evidence analysis. Emphasis on rules in order to perform any boundary survey, particularly for Arizona	CET102 and CET201.			
CET257	Route and Construction Surveying		Principles and field practice of route and construction surveying, including route control surveys, construction control, topographic mapping, highway curves, and computations for roadways, utilities, bridges, buildings, small commercial sites, and subdivisions	Prerequisites: A grade of C or better in CET102 or permission of Department or Division.		Occ	L+L 3.0 5.0 5.0
CET296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				major or career interest or with permission of Instructor.			
CET296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
CET296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
CET296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CET298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
CET298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
CET298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
CFS101AH	Art Activities for the Young Child		The creative use of art media and techniques at appropriate developmental levels.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS101AJ	Music Activities for the Young Child		Experiences with music in singing, rhythm instruments, creative movements, and games, as well as the development of music appreciation and basic listening skills.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS101AP	Science Activities for the Young Child		Interpreting the study of science in early childhood education as a part of a dynamic growth process offered by the child's daily life experiences.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS101AR	Learning With Toys		Use of creative imagination with toys to enable the child alone or with others to explore the world. Includes evaluating proper use of toys and appropriate developmental skills.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS106	Stress Management in the Family		Impact of stress factors on the family. Managing time and stress in the home. Options for coping with anxiety.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS107	Men and Children: Strengthening the Bond		Overview of the relationship between fathers or significant male figures and children from the role perspective of the involved, nurturing male. Strategies for assessing and organizing successful male involvement programs examined.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS109	Parent/Child Communication		Communication between parents and children. Developing self-esteem, responsibility and	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			empathic listening. Pitfalls to communication				
CFS111	Relationships to Promote Learning in Young Children: Birth to Age Three		Overview of the relationship between the teacher/caregiver and child from the perspective of a reflective teacher. Students will learn the importance of assessing, understanding, and enhancing the development of emotional skills of young children to help guide and develop a child's self-image. Student will also be able to monitor, reflect, and plan self-care so they become effective teachers.	Prerequisites: None. CFS/ECH176 recommended.		Acad	LEC 1.0 1.0 1.0
CFS112	Personal Growth and Family Relations		Personal development as related to the individual, the family, and their relations. Emphasis on interpersonal family relationships. Skills and techniques to facilitate and strengthen the individual and family relationships.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
CFS114	Working with the Hyperactive Child		Causes of hyperactivity in children; focus on the family's role in identification, treatment and school/community support.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS116	Discipline and Guidance		Age appropriate principles for disciplining and guiding young children's behavior in child care settings, including interpersonal and environmental strategies. Observational opportunities provided.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS120	Contemporary Issues In Early Childhood		Designed to develop understanding of a broad range of contemporary issues that impact the child in today's society. Course directed at pre-service and in-service professionals.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CFS121AA	Single Parent Family-Adjustment		Overview of issues facing single parent families. Examination of adjustment issues with emphasis on relationships. Methods of adapting family life to meet the needs and variations of one-parent families.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS123	Health and Nutrition In Early Childhood Settings		Creating and maintaining healthy environments and practices in programs serving young children. Emphasis on assessing the child's health status, nutrition and food service, communicable disease recognition, transmission, and prevention, infection control, regulations and regulatory agencies, current topics, resources, and innovative practices.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS125	Safety in Early Childhood Settings		Fundamental concepts of promoting a safe, but challenging learning environments. Establishing and maintaining safety procedures in the early childhood setting. Emphasis on indoor and outdoor equipment and activities, risk analysis, accident, evacuation, and emergency plans, regulations, regulatory agencies and resources, current topics, and innovative practices.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS130	Demystifying Adolescence		A holistic overview of the physical, social, and emotional development of adolescents. Emphasis on effective skills necessary for working with adolescents and their families.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS140	Special Topics: Child and Family Studies		Explores special topics related to child and family studies. Topics vary and include	Prerequisites: None.	CFS140 may be repeated for a total of	Acad	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			concepts relevant to those pursuing careers in or employed in early childhood care or to those working with families in programs, agencies, organizations, and resource centers that provide services to families.		two (2) credit hours with change of topic.		
CFS157	Marriage and Family Life		Study of marriage and the family as a social system, including models of family analysis, intra- and interpersonal relations, and cross-cultural and historical patterns	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
CFS159	The Modern Family		An examination of the modern American family. Special emphasis on the changing functions and roles of individuals within today's society and an analysis of the basic problems confronting the family, including alternative family styles	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
CFS160	Using Music, Speech, and Movement with Children's Literature		Using elements of music, speech, and movement with children's literature, including rhymes, chants, songs, and books to enhance children's social, physical, cognitive, and emotional development.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS163	Family Child Care: Introduction to Business Management		Emphasis on small business management and effective policies and procedures for family child care providers. Licensing, legal, and regulatory issues in a home setting are examined	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS164	Family Child Care: Curriculum and Environment		Family child care planning for multi-age groupings of children through age eight. Role of the environment as well as various curriculum programs will be explored and	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			evaluated. Exploration of culturally rich, inclusive and child-centered environment in his/her own child care setting. Issues of professionalism, family partnerships, observation, guidance, and health/safety practices are examined				
CFS164AA	Family Child Care: The Environment		Family child care environments for multi-age groupings of children through age eight. Exploration of culturally rich, inclusive, and child-centered environment in his/her own child care setting. Issues of health/safety practices are examined	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS164AB	Family Child Care: Programming, Guidance and Observation		Family child care programming for multi-age groupings of children through age eight. Various curriculum programs will be explored and evaluated. Issues of observation and guidance are examined	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS164AC	Family Child Care: Family Partnerships and Professionalism		Issues of professionalism, family partnerships, communication, and ethical practices are examined	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS167	School-Age Child Care Provider		Issues related to school-age child care. Past, current, and future trends; regulations, insurance liabilities and coverage, shared facilities, and community resources. Techniques for managing/administering services and personnel, communicating with parents, and evaluating the care/program. Planning and scheduling the school-age program. Includes overview of child growth and	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development, types of routines and activity schedules.				
CFS176	Child Development	ECH176	Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
CFS177	Parent-Child Interaction		Positive methods to strengthen relationships and resolve conflicts with children. Focus on effective interpersonal skills and guidance techniques	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS178	Survey of Early Childhood Education		Orientation to basic concepts of day care and nursery programs. History and philosophy of child care services including state regulations governing those services. Observation opportunities provided.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS179	Child Care: A Multifaceted Career		Overview of the child care field. Focus on enhancing children's self esteem, providing for children's nutritional needs, and developing adequate safety and sanitation practices	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS181	Enhancing Infant and Toddler Development		Principles of development in children from birth through 30 months. Emphasis on individuality of child and the adult role in providing a safe and stimulating environment for the development of the child.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS182	Parenting the Early Adolescent: Ages Ten to Fourteen		Emphasis on the early adolescent developmental period, ages ten to fourteen, and the importance of the parent-child relationship, as well as strategies to ensure successful teen years.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CFS183	Contemporary Issues in Adolescence		Current issues that impact adolescent development and behavior explored. Comprehensive and specific strategies for addressing these issues as parents or professionals working with teens emphasized. Issues related to adolescent sexuality, abuse, mental health, violence, and risk behaviors included.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS190	Home-Based Visitation		Emphasis on development of skills needed to successfully complete home-based client visitation. Opportunities for field-based observations provided.	Prerequisites: None.		Acad	L+L 3.0 4.0 4.0
CFS192	Child Care Center Staff Development		Presents strategies to administrators and supervisors in child care centers for developing the personal and professional growth of child care staff.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS193	Financial Management in Child Care Centers		Provides strategies for financial management and administration of finances in a child care center. Specific concerns of participants addressed.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS194AA	Early Childhood Program Management: Staffing and Managing		Methods and techniques for recruiting, staffing, and managing in early childhood programs.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS194AB	Early Childhood Program Management: Human Relations		Basic human relations in early childhood organizations and the influence of the individual's personal needs on the overall needs and objectives of the organization.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS194AC	Early Childhood Program Management: Organizational Structure		Provides a broad perspective of the organizational life of an early childhood environment.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CFS195	Early Childhood Personnel Supervision		Covers supervision concepts and applications for early childhood programs.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS196	Ethics and the Early Childhood Educator		Ethical issues in the early childhood field.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS197	Leadership in Early Childhood Education		Provides concepts for understanding and managing leadership roles and responsibilities in the early childhood field.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS204	Reflective Supervision		Reflective supervisory processes to enhance learning and professional development. Includes professional development stages to provide supervisors with tools to support professional growth. Also covers challenges and barriers to the supervisor and employee/practitioner relationship.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS205	Human Development		Explores the growth and development process over the human life span. Research and theoretical approaches; physical, cognitive, social, and personality development from birth through adulthood and death.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
CFS206	Child and Family Organizations: Management and Administration		Examination of management and administration of community- based child and family organizations within the context of organizational behaviors. Focus on attributes of effective organizations: the impact of organizational culture and learning, work-place diversity and employee motivation.	12-13-2022		Acad	LEC 3.0 3.0 3.0
CFS207	Organization and Community Leadership in Child and Family Organizations		Examination of organization and community leadership as it applies to the management and	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			administration of community- based child and family services organizations. Provides overview of leadership styles and function.				
CFS208	Child and Family Organizations: Fiscal Management and Grant Writing		Examination of fiscal accountability and resource development as it applies to the management and administration of community-based child and family social service organizations. Provides overview of grant development processes beginning with research into governmental and private funding sources through fiscal and grant audit processes. Includes budget development, risk management, and cost control issues.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS209	Child and Family Organizations: Project Management		Focuses on concepts and strategies associated with effective project management in community-based child and family organizations. Emphasis on planning, evaluation and project management models.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS210	Family Life Education		Provides an overview of the professional work within the field of family life education. Emphasis on developing flexible, culturally sensitive and effective professional skills	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS220	Introduction to Parenting and Family Development		Overview of the field of family and parent development. Focuses on parenthood as a developmental process and cultural influences on child rearing. A family systems perspective introduced and applied to understanding families with children	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS225	Foundations of Parent Education		Professional development as related	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to work with parents. Emphasis on developing effective skills with parents, professionals and paraprofessionals involved with the child. Skills and techniques to facilitate and strengthen the individual and family relationships.				
CFS235	Developing Child: Theory into Practice, Prenatal to Age Eight		Understanding and working with young children, birth through age eight. Analysis of young children's physical, social, emotional, cognitive and linguistic development within their home, school, and cultural contexts. Typical and atypical development. Implications for teachers and parents. Emphasis on observations and planning curriculum based on theories, research, and child-specific data.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
CFS240	Human Behavior in Context		Considers the influences of physical and social environments in which human behavior occurs. Includes multiple roles and perspectives of the individual, the family, society and the professional.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS242	Curriculum Planning for Diversity		Practical early childhood classroom applications for a diverse population, including integration of cultures, generations, genders, and races into the classroom, facilitation of second language acquisition, and practical teaching strategies which are also developmentally appropriate.	Prerequisites: A grade of C or better in CFS/ECH176 .	Course Attribute(s): General Education Designation : Cultural Diversity - [C]	Acad	LEC 3.0 3.0 3.0
CFS243	Cross-Cultural Parenting		Focus on the study of parents and children from a cross-cultural position. Emphasis on parenting styles and	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			practices from a cultural directive and expectation perspective. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services				
CFS247	Family Ties and Aging		Identification and examination of facets of family relationships and aging. Emphasis on study of central family connections for older people, unique family situations, and implications of family transitions. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS249	Transition to Adulthood		Emphasis on major elements of the transition to adulthood and key links to changes in family relationships. Focus on the realignment of intergenerational relationships and reassessment of family priorities. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS250	Social Policy and Families		Examines the impact of social policy on family systems and the implications for professional roles and practice.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS251	Transitions: Work to Retirement		Explores the work to retirement transitional issues that impact individuals and families. Emphasis on physical, cognitive and psychosocial dimensions of retirement.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CFS252	Contemporary Issues in Aging		Current issues that impact aging development and behavior explored. Comprehensive and specific strategies for addressing these issues for professionals working with aging adults emphasized.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS256	Management in the Family		Management as a means to the realization of individual and family values and goals; creation, allocation, and use of resources. Focus on decision making	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS257	Working with Families with Diverse Needs		A collaborative approach to working with families with diverse needs. Examines the effect of specific challenges on the family system. Presents techniques for those working with families to facilitate stress management, conflict resolution, and utilization of community and personal resources to aid in the strengthening of the family unit.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CFS258	Families in Society		Areas of concentration include family transition, diversity in structure and culture faced by contemporary families, problems, crisis and change affecting the stress on families as our society progresses into a more complicated future. The study of change as an integral part of all family's day-to-day experiences while recognizing that family ancestral and cultural dimensions are fundamental for all family groupings. Course designed for those seeking careers in Family Studies, Parent Education, Psychology,	Prerequisites: A grade of C or better in CFS157 and CFS259 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Social Work/Human Services				
CFS259	Sexuality over the Life Span		Examination of the physical, psychological, social, and cultural contributions to human sexuality. Emphasis on family life and cultural variation. Examination of facts and myths, current literature, and changing mores regarding human sexuality. Sexuality of males and females in contemporary society; impact of sexual trends on society; home/school issues in sexuality education.	Prerequisites: Permission of Department or Division. Student must be 18 years or older.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
CFS263	Child and Family Studies Seminar		Classroom portion of Child and Family Studies Internship. Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job problems.	Prerequisites: Permission of Department or Division. Corequisites: CFS264AA or CFS264AB or CFS264AC initial enrollment in internship module.		Acad	LEC 1.0 1.0 1.0
CFS264AA	Child and Family Studies Internship		Laboratory portion of Child and Family Studies Seminar. Five hours of work weekly. Supervision and evaluation by a coordinator.	Prerequisites: Permission of Department or Division Corequisites: CFS263 when initially enrolled in CFS264AA or CFS264AB or CFS264AC module.	CFS264AA may be repeated for a total of six (6) credit hours.	Acad	LAB 1.0 5.0 0.0
CFS264AB	Child and Family Studies Internship		Laboratory portion of Child and Family Studies Seminar. Ten hours of work weekly. Supervision and evaluation by a coordinator.	Prerequisites: Permission of Department or Division Corequisites: CFS263 when initially enrolled in CFS264AA	CFS264AB may be repeated for a total of six (6) credit hours.	Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or CFS264AB or CFS264AC module.			
CFS264AC	Child and Family Studies Internship		Laboratory portion of Child and Family Studies Seminar. Fifteen hours of work weekly. Supervision and evaluation by a coordinator.	Prerequisites: Permission of Department or Division Corequisites: CFS263 when initially enrolled in CFS264AA or CFS264AB or CFS264AC module.	CFS264AC may be repeated for a total of six (6) credit hours.	Acad	LAB 3.0 15.0 0.0
CFS269	Child Care Seminar	ECH269	Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job issues.	Prerequisites: Permission of Department or Division.	CFS/ECH269 may be repeated for a total of three (3) credit hours.	Acad	LEC 1.0 1.0 1.0
CFS271	Arranging the Environment	ECH271	Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS273	Math for the Young Child	ECH273	Methods and techniques for encouraging the beginnings of mathematical/logical thought with young children. Focus upon the theory of Jean Piaget.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS275	Literacy Development and the Young Child	ECH275	Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, writing, and reading in the home and classroom.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS277	Adult-Adolescent Interaction		Prepares social service workers, teachers, and parents to interact effectively with teenagers. Develops	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			understanding of the interaction between adolescents and their families. Teaches practical strategies to deal with specific problem areas.				
CFS281	Adolescent School Success		An overview of factors that contribute to adolescent school success, including family-school interactions, special needs adolescents, and problem areas. Emphasis on strategies and resources to facilitate school success.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS282	Mainstreaming The Young Child with A Disability		An exploration of the educational, social, and behavioral issues and concerns involved in the successful integration of children with disabilities into typical preschool classes. Includes discussion of practical concerns such as adaptation of environment and accessing existing resources in the community.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS283	Multicultural Early Child Education		Practical early childhood classroom applications for a diverse ethnic population, including integration of multiculturalism into the classroom, facilitation of second language acquisition, and practical teaching strategies which are also developmentally appropriate.	Prerequisites: A grade of C or better in CFS/ECH176		Acad	LEC 1.0 1.0 1.0
CFS284AA	Early Childhood Teaching Internship	ECH284A A	Work experience in child care centers. 80 hours of designated work per credit.	Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division.	CFS/ECH284AA may be repeated for a total of six (6) credit hours.	Acad	L+L 1.0 1.0 0.0
CFS284AB	Early Childhood Teaching Internship	ECH284A B	Work experience in child care centers. 80 hours of	Prerequisites: A grade of C		Acad	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			designated work per credit. Maximum of 6 credits allowed.	or better in CFS/ECH176 and permission of department. Corequisites: CFS/ECH269			
CFS285	Family-School Interaction		Interaction among parents, teachers and the school. Emphasis on methods used cooperatively by parents and teachers to provide for education and developmental needs.	Prerequisites: A grade of C or better in CFS/ECH176 or CFS278 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CFS285AA	Family-School Interaction: Preschool		Interaction among parents, teachers and the preschool. Emphasis on methods used cooperatively by parents and preschool teachers to provide for education and developmental needs.	Prerequisites: A grade of C or better in CFS/ECH176 or CFS278 or permission of Instructor.		Acad	LEC 1.0 1.0 1.0
CFS287	Professional Development in Early Childhood Education	ECH287	Emerging professionalism within the field of early childhood education. Consideration of job responsibilities, rewards, ethics and current issues facing practitioners. Includes assessment and career planning.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CFS290AA	Child Abuse: Identification and Reporting in Child Care Settings		Identification, recording, and reporting by child care providers of sexual abuse, physical abuse, or neglect of young children.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CHA104	Community Health Work		Preparation of Community Health workers for outreach health prevention, advocacy, education, referral, and intervention working with individuals, communities and families. Includes history of community health work programs, community systems, and resources for clients and families often in disparity.	Prerequisites: None.	A minimum of 30 hours of service learning experience in a community-based setting involving interacting with various agencies within the community,	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					managing home visits, dealing with challenging situations, and empowerin g and mobilizing for action.		
CHI101	Elementary Chinese (Mandarin) I		Introduction to the basic grammar, pronunciation and vocabulary of the Mandarin Chinese language. Includes the study of Chinese culture, practice of listening, speaking, reading, and writing skills	Prerequisites: None.	General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 1101	Acad	L+L 5.0 6.0 6.0
CHI102	Elementary Chinese (Mandarin) II		Study of grammar and vocabulary along with the study of Chinese culture. Emphasis on pronunciation and speaking skills.	Prerequisites: A grade of C or better in CHI101 or permission of Department or Division. Completion of prerequisites within the last three years is required.	General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 1102	Acad	L+L 5.0 6.0 6.0
CHI115	Beginning Chinese Conversation I		Introduction to Chinese sound system, basic grammar, and vocabulary necessary to develop speaking ability in Mandarin Chinese. Designed for students seeking speaking and listening ability with little emphasis on writing and reading Chinese characters	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CHI116	Beginning Chinese Conversation II		Continued development of speaking and listening skills for effective communication in Mandarin Chinese. Includes elements of Chinese culture	Prerequisites: A grade of C or better in CHI115 or permission of Department or Division. Completion of		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				prerequisites within the last three years is required.			
CHI201	Intermediate Chinese I		Continued development of speaking, reading, and writing proficiency in Mandarin Chinese through building vocabulary, phrases, idioms, and grammatical patterns. Includes study of Chinese culture	Prerequisites: A grade of C or better in CHI102 or permission of Department or Division. Completion of prerequisites within the last three years is required.	General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 2201	Acad	L+L 5.0 6.0 6.0
CHI202	Intermediate Chinese II		Advanced development of speaking, reading, and writing skills in Mandarin Chinese, and continued exploration of Chinese culture	Prerequisites: A grade of C or better in CHI201 or permission of Department or Division. Completion of prerequisites within the last three years is required.	General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 2202	Acad	L+L 5.0 6.0 6.0
CHI225	Intermediate Chinese Conversation I		Continued development of oral and aural skills for effective communication in Mandarin Chinese	Prerequisites: A grade of C or better in CHI116 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
CHI226	Intermediate Chinese Conversation II		A continuation of conversational skills for effective communication in Mandarin Chinese	Prerequisites: A grade of C or better in CHI225 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CHI296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
CHI296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to student's major or career interest or with permission of the Instructor.			
CHI296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
CHI296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
CHI298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
CHI298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
CHI298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
CHM100	Preparation for Fundamental Chemistry		A preparatory course designed to review fundamental math and chemistry principles for students inexperienced or insecure with these concepts. Stresses individualized instruction. Designed to prepare students for CHM130.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CHM107	Chemistry and Society		A survey of chemistry and its impact on society and the environment.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CHM107LL	Chemistry and Society Laboratory		Laboratory experience in support of CHM107.	Prerequisites: A grade of C or better in CHM107 or Corequisites: CHM107.	General Education Designation : Natural Sciences (Quantitative) - [SQ] in combination with: CHM107	Acad	LAB 1.0 3.0 3.0
CHM130	Fundamental Chemistry		A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem solving techniques. Basic principles of	Prerequisites: A grade of C or better in [(CHM100, or high school algebra, or MAT140 or	Students may receive credit for only one of the following: CHM130	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			measurement, chemical bonding, structure and reactions, nomenclature, and the chemistry of acids and bases. Preparation for students taking more advanced courses in chemistry.	higher, or an EdReady score of 70 or higher) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101 as indicated by appropriate reading placement)], or permission of the Instructor, or Department or Division Chair.	and CHM130LL, or CHM130AA . Course Attribute(s): General Education Designation : Natural Sciences (Quantitativ e) - [SQ] in combination with: CHM130LL Arizona Shared Unique Number SUN# CHM 1130 in combination with: CHM130LL		
CHM130AA	Fundamental Chemistry with Lab		A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem solving techniques. Basic principles of measurement, chemical bonding, structure and reactions, nomenclature, and the chemistry of acids and bases. Preparation for students taking more advanced courses in chemistry.	Prerequisites: A grade of C or better in [(CHM100, or high school algebra, or MAT140 or higher, or an EdReady score of 70 or higher) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101 as indicated by appropriate reading placement)], or permission of the Instructor, or Department or Division Chair.	Student may receive credit for only one of the following: CHM130 and CHM130LL, or CHM130AA . Course Attribute(s): General Education Designation : Natural Sciences (Quantitativ e) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
CHM130LL	Fundamental Chemistry Laboratory		Laboratory experience in support of CHM130.	A grade of C or better required in all Prerequisites. Prerequisites	Students may receive credit for only one of the	Acad	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or Corequisites: CHM130.	following: CHM130 and CHM130LL, or CHM130AA . Course Attribute(s): Natural Sciences (Quantitativ e) - [SQ] in combination with: CHM130 Arizona Shared Unique Number SUN# CHM 1130 in combination with: CHM130		
CHM138	Chemistry for Allied Health		Elements of fundamental and organic chemistry. Includes the general chemical behavior of inorganic matter and the structure of organic and biochemical systems. Course designed for specific allied health programs at MCCD. May not be applicable to other allied health programs or transferable.	Prerequisites: A grade of C or better in [CHM100 or MAT090 or MAT091 or MAT092 or (MAT103AA and MAT103AB) or higher or satisfactory score on math placement exam], or one year of high school chemistry taken within the last five years with a grade of C or better, or permission of the Instructor, or Department or Division Chair.		Acad	LEC 3.0 3.0 3.0
CHM138LL	Chemistry for Allied Health Laboratory		Laboratory experience in support of CHM138,	Prerequisites: None.		Acad	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Chemistry for Allied Health.	Corequisites: CHM138.			
CHM140AA	General Chemistry for Engineers with Lab		Generalized study of the principles of chemistry as they relate to fields of engineering.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of Instructor, or Department or Division Chair. Completion of prerequisites within the last two years is recommended.		Acad	L+L 6.0 9.0 9.0
CHM150	General Chemistry I		Detailed study of principles of chemistry for science majors and students in pre-professional curricula.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or	Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair.	CHM151LL, or CHM150AA , or CHM151AA . Course Attribute(s): General Education Designation : Natural Sciences (Quantitativ e) - [SQ] in combination with: CHM151LL		
CHM150AA	General Chemistry I with Lab		Detailed study of principles of chemistry for science majors and students in pre-professional curricula.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair.	Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA , or CHM151AA . Course Attribute(s): General Education Designation : Natural Sciences (Quantitativ e) - [SQ]	Acad	LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0
CHM151	General Chemistry I		Detailed study of principles of chemistry for science majors and students in pre-professional curricula.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or	Completion of all prerequisites within the last two years is recommend	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair.	ed. Students may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA , or CHM151AA . Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] in combination with: CHM151LL Arizona Shared Unique Number SUN# CHM 1151 in combination with: CHM151LL		
CHM151AA	General Chemistry I with Lab		Detailed study of principles of chemistry for science majors and students in pre-professional curricula.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level	Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL,	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair.	or CHM150AA , or CHM151AA . Course Attribute(s): General Education Designation : Natural Sciences (Quantitativ e) - [SQ]		
CHM151LL	General Chemistry I Laboratory		Laboratory experience in support of CHM150 or CHM151.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CHM150 or CHM151.	Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA , or CHM151AA . Course Attribute(s): General Education Designation : Natural Sciences (Quantitativ e) - [SQ] in combination with: CHM151LL Arizona Shared Unique Number SUN# CHM 1151 in combination with: CHM151LL	Acad	LAB 1.0 3.0 3.0
CHM152	General Chemistry II		A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics,	Prerequisites: A grade of C or better in [(CHM150 or CHM151) and	Completion of CHM152LL required to meet the Natural	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			electrochemistry, and other selected topics.	CHM151LL], or CHM150AA, or CHM151AA, or permission of the Instructor, or Department or Division Chair.	Science requirement . Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA .		
CHM152AA	General Chemistry II with Lab		A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics.	Prerequisites: A grade of C or better in [(CHM150 or CHM151) and CHM151LL], or CHM150AA, or CHM151AA, or permission of the Instructor, or Department or Division Chair.	Completion of prerequisites within the last two years recommended. Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA .	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
CHM152LL	General Chemistry II Laboratory		Laboratory experience in support of CHM152.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CHM152.	Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA .	Acad	LAB 1.0 3.0 3.0
CHM195AA	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting	Prerequisites: A grade of C or better in CHM151 or permission of Instructor.	CHM195AA may be repeated for credit.	Acad	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.				
CHM195AB	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.	Prerequisites: A grade of C or better in CHM151 or permission of Instructor.	CHM195AB may be repeated for credit.	Acad	L+L 2.0 4.0 4.0
CHM195AC	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate	Prerequisites: A grade of C or better in CHM151 or permission of Instructor.	CHM195AC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research design, data collection, and data interpretation in conventional scientific formats.				
CHM230	Fundamental Organic Chemistry		Chemistry of representative groups of organic compounds, emphasizing biological applications.	Prerequisites: A grade of C or better in (CHM130 and CHM130LL) or (CHM150 or CHM151 and CHM151LL), or permission of the Instructor, or Department or Division Chair.	Completion of prerequisites within the last two years recommended. CHM230 course content is designed to meet the needs of students in such areas as agriculture, home economics, nursing, pre-physician assistant, and physical education among others. Students may receive credit for only one of the following: CHM230 and CHM230LL or CHM230AA. Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] in combination with: CHM230LL	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Arizona Shared Unique Number SUN#: CHM 2230		
CHM230AA	Fundamental Organic Chemistry with Lab		Chemistry of representative groups of organic compounds, emphasizing biological applications.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL) or CHM130AA] or [(CHM150 or CHM151) and CHM151LL) or CHM151AA] or permission of the Instructor or Department or Division Chair.	Students may receive credit for only one of the following: (CHM230 and CHM230LL) , or CHM230AA . Completion of prerequisites within the last two years recommended. CHM230AA course content is designed to meet the needs of students in such areas as agriculture, home economics, nursing, pre-physician assistant, and physical education among others.	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
CHM230LL	Fundamental Organic Chemistry Laboratory		Laboratory experience in support of CHM230	Prerequisites: A grade of C or better in CHM130LL or CHM151LL or equivalent or	CHM230LL students may receive credit for only one of the following: (CHM230 and	Acad	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Corequisites: CHM230.	CHM230LL) , or CHM230AA . Completion of prerequisites within the last two years recommend ed. Designed for students in agriculture, dental hygiene, home economics, nursing, and physical therapy. Course Attribute(s): General Education Designation : Natural Sciences (Quantitativ e) - [SQ] in combination with: CHM230 Arizona Shared Unique Number SUN#: CHM 2230		
CHM235	General Organic Chemistry I		Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized.	Prerequisites: A grade of C or better in (CHM152 and CHM152LL), or CHM152AA, or (CHM154 and CHM154LL), or permission of the Instructor, or Department	Completion of prerequisites within the last two years recommend ed. Course Attribute(s): Arizona Shared Unique Number SUN#: CHM 2235	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or Division Chair.			
CHM235AA	General Organic Chemistry I with Lab		Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized.	Prerequisites: A grade of C or better in (CHM152 and CHM152LL), or CHM152AA, or (CHM154 and CHM154LL), or permission of the Instructor, or Department or Division Chair.	Student may receive credit for only one of the following: CHM235 and CHM235LL, or CHM235AA . Completion of prerequisite s within the last two years recommend ed.	Acad	LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0
CHM235LL	General Organic Chemistry I Laboratory		Laboratory experience in support of CHM235.	Prerequisites: A grade of C or better in CHM235 or Corequisites: CHM235. Completion of prerequisites within the last two years recommende d.	Course Attribute(s): Arizona Shared Unique Number SUN#: CHM 2235	Acad	LAB 1.0 4.0 4.0
CHM236	General Organic Chemistry IIA		Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized.	Prerequisites: A grade of C or better in (CHM235 and CHM235LL) or CHM235AA or permission of the Instructor or Department or Division Chair.	Students may receive credit for only one of the following: CHM236 and CHM236LL, or CHM236AA . Completion of prerequisite s within the last two years recommend ed. Course Attribute(s):	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Arizona Shared Unique Number SUN# CHM 2236		
CHM236AA	General Organic Chemistry IIA with Lab		Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized.	Prerequisites: A grade of C or better in (CHM235 and CHM235LL) or CHM235AA, or permission of the Instructor, or Department or Division Chair.	Student may receive credit for only one of the following: CHM236 and CHM236LL, or CHM236AA . Completion of prerequisite s within the last two years recommend ed.	Acad	LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0
CHM236LL	General Organic Chemistry IIA Laboratory		Laboratory experience in support of CHM236.	Prerequisites: A grade of C or better in CHM236 or Corequisites: CHM236. Completion of prerequisites within the last two years recommende d.	Course Attribute(s): Arizona Shared Unique Number SUN#: CHM 2236	Acad	LAB 1.0 4.0 4.0
CHM260	Fundamental Biochemistry		Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates and lipids; the utilization and synthesis of these materials by living systems and the relationship of the processes to energy production and utilization.	Prerequisites: A grade of C or better in [(CHM230 and CHM230LL) or CHM230AA] or [(CHM235 and CHM235LL) or CHM235AA] or permission of the Instructor or Department	Completion of prerequisite s within the last two years recommend ed. Designed for students in agriculture, dental hygiene, home economics, nursing,	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or Division Chair.	and physical therapy.		
CHM260LL	Fundamental Biochemistry Laboratory		Laboratory experience in support of CHM260.	Prerequisites: A grade of C or better in CHM260 or Corequisites: CHM260. Completion of prerequisites within the last two years recommended.		Acad	LAB 1.0 3.0 3.0
CHM282AA	Service-Learning Experience in Chemistry		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	CHM282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
CHM282AB	Service-Learning Experience in Chemistry		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	CHM282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
CHM282AC	Service-Learning Experience in Chemistry		Unpaid Service-Learning experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	CHM282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures	Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					outlined in catalog.		
CHM295AA	Special Topics in Chemistry		Specialized chemistry-related content not represented in the main curriculum.	Prerequisites: None.	CHM295AA may be repeated for credit.	Acad	L+L 1.0 1.0 1.0
CHM295AB	Special Topics in Chemistry		Specialized chemistry-related content not represented in the main curriculum.	Prerequisites: None.	CHM295AB may be repeated for credit.	Acad	L+L 2.0 2.0 2.0
CHM295AC	Special Topics in Chemistry		Specialized chemistry-related content not represented in the main curriculum.	Prerequisites: None.	CHM295AC may be repeated for credit.	Acad	L+L 3.0 3.0 3.0
CHM296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
CHM296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				<p>obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.</p>			
CHM296W C	Cooperative Education		<p>Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.</p>	<p>Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.</p>		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CHM296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0
CHM298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
CHM298AB	Special Projects		Organized and tailored around the interests and	Prerequisites: Permission of		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Program Director or Instructor.			
CHM298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
CIS100	Internet: A Tool for Learning		Use of the Internet to promote learning. Focus on Internet services and access. Information provided on browsing, Internet addresses, naming conventions, search concepts and techniques, using bookmarks and capturing information	Prerequisites: None.		Occ	L+L 0.5 0.5 0.5
CIS102	Interpersonal and Customer Service Skills for IT Professionals		Examines behaviors necessary to develop and support an effective client service organization. Focuses	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			on methods of increasing the effectiveness of help-desk professionals when responding to a range of customer conditions				
CIS102DA	Customer User Support		Examines skills, tools and strategies necessary for becoming a computer help-desk or end-user support professional.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS103	Introduction to Social Media		Identify and explain social media and Web 2.0 technologies for personal, academic, professional, and business applications. Create and maintain accounts on various sites to socialize, write, and share multimedia, while understanding the related ethics, privacy and security issues.	Prerequisites: None.	Students must be 13 years or older to enroll in CIS103 as students are required to create social media accounts for course participation .	Occ	L+L 3.0 4.0 4.0
CIS105	Survey of Computer Information Systems		Overview of computer technology, concepts, terminology, and the role of computers in business and society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes uses of application software and the Internet for efficient and effective problem solving. Exploration of relevant emerging technologies.	Prerequisites: None.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS] Arizona Shared Unique Number SUN#: CIS 1120	Occ	L+L 3.0 4.0 4.0
CIS107	The Electronic Game Industry		Introduction to the electronic game industry, including history, market, distribution and publishing channels, business models, team roles, and career landscape. Technical topics covered include software engineering, artificial intelligence, game physics, computer	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			graphics, and networking.				
CIS108	Electronic Portfolio Development		Compile, reflect on, and select prior learning experiences and artifacts. Design, produce, and publish an online portfolio that documents prior learning. Includes techniques for presenting the electronic portfolio for evaluation.	Prerequisites: A grade of C or better in (CIS105 or BPC110) or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
CIS109AM	Networking Technology I		Computer networking basics. Network services, transmission media, and connectivity devices covered. Open Systems Interconnection (OSI) Reference Model	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CIS111	Ethics in Information Technology		Ethical issues that arise as a result of increasing use of computers, and the responsibilities of those who work with computers, either as computer science professionals or end users. Critical inquiry and review of ethical challenges in information technology business, including professional and corporate responsibility, government regulation, fiduciary responsibilities of information, infringement of intellectual property, security risk assessment, Internet crime, identity theft, employee surveillance, privacy, compliance, social networking, and the ethics of IT corporations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CIS113AE	Microsoft Word: Word Processing Level I		Using word processing software to create, name and manage files, edit text, and do basic formatting of documents.	Prerequisites: None.	CIS113AE may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CIS113BE	Microsoft Word: Word Processing Level II		Using more advanced features of word processing software to format documents, create lists, mail-merged documents, and documents with themes and styles.	Prerequisites: A grade of C or better in CIS113AE or permission of Instructor.	CIS113BE may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0
CIS113CE	Microsoft Word: Word Processing Level III		Utilizing more advanced features of word processing software to incorporate style and theme elements, use desktop publishing capabilities, and insert tables.	Prerequisites: A grade of C or better in CIS113BE or permission of Instructor.	CIS113CE may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0
CIS113DE	Microsoft Word: Word Processing		Using word processing software to create, name and manage files, edit text, format, apply themes and styles, create and modify tables, apply desktop publishing features, and print a variety of types of documents.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS114AE	Excel: Level I		Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS114BE	Excel: Level II		Additional Excel spreadsheet techniques, including macro programming, database searching, extraction, and linking to obtain prescribed reports and graphs.	Prerequisites: A grade of C or better in CIS114AE or permission of Instructor.	CIS114BE may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0
CIS114CE	Excel: Level III		Additional Excel spreadsheet techniques, including complex macros, statistics, and matrix manipulation. Project design using multiple, integrated spreadsheets	Prerequisites: A grade of C or better in CIS114BE or permission of Instructor.		Occ	LEC 1.0 1.0 1.0
CIS114DE	Excel Spreadsheet		Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, projections, macro programming, database searching, extraction,	Prerequisites: None.	CIS114DE may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			linking, statistics, and matrix manipulation. Production of graphs and reports. Project design using multiple, integrated spreadsheets.				
CIS116	Computer Graphics: Introduction to Microsoft Visio		Introduction to use of Visio graphics software to create and edit drawings using predefined shapes and templates. Use of Visio tools to create simple drawings with text, symbols and labels.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS117AM	Database Management: Microsoft Access - Level I		Introduction to the basic elements of a current version of the Microsoft Access database management program, for casual and beginning users.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS117BM	Database Management: Microsoft Access - Level II		Exploration of additional components of the Microsoft Access database management program.	Prerequisites: A grade of C or better in CIS117AM or permission of Instructor.	CIS117BM may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0
CIS117CM	Database Management: Microsoft Access - Level III		Application of the features of the Microsoft Access program to some common database management problems	Prerequisites: A grade of C or better in CIS117BM.		Occ	L+L 1.0 1.0 1.0
CIS117DM	Microsoft Access: Database Management		Introduction to Microsoft Access. Emphasis on features, design, and database management.	Prerequisites: None.	CIS117DM combines the contents of CIS117AM, CIS117BM and CIS117CM. CIS117DM may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 4.0 4.0
CIS118AB	PowerPoint: Level I		Use of PowerPoint software to produce professional-quality presentation visuals	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS118BB	PowerPoint: Level II		Use of PowerPoint software to add movement and sound to	Prerequisites: A grade of C	CIS118BB may be repeated for	Occ	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			desktop presentations to enhance audience attention.	or better in CIS118AB.	a total of three (3) credit hours.		
CIS118DB	Desktop Presentation: PowerPoint		Use of PowerPoint to produce professional-quality presentation visuals with animation and sound.	Prerequisites: None.	CIS118DB may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 4.0 4.0
CIS119DO	Introduction to Oracle: SQL		Use of Oracle tools and methodologies to fulfill real-world business requirements. Hands-on exercises for designing, creating, and maintaining database structures to store, retrieve, update, and display data in a relational database using the SQL programming language. Creating and maintaining database objects. Advanced retrieval techniques.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS119DP	Oracle: Database Administration		Basic administrative tasks performed by a database administrator (DBA). Conceptual understanding and hands-on applications of the Oracle database architecture and interaction of its components.	Prerequisites: A grade of C or better in CIS119DO, or permission of Instructor. (CIS126++ or CIS121++ or MST152++) is recommended.		Occ	L+L 3.0 4.0 4.0
CIS120AJ	Introduction to Digital Photo Editing		Introduction to digital photography and image editing. Digital photo editing use of electronic techniques to select, manipulate, and edit images.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS120DA	Introduction to Adobe Premiere		Foundations of video import, export, and editing. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			audio, capturing, editing, rendering and outputting digital video. Prepares students for the Adobe Certifications related to Adobe Premiere.				
CIS120DB	Introduction to Adobe Illustrator		Provides students with the knowledge and skills to use Adobe Illustrator graphics software on a computer. Basic foundation course in the use of electronic techniques to create, manipulate, and edit images, text, abstract art, graphics design, color graphics and business charts; determine file formats appropriate for web and print; utilize tools to optimize graphics and create a PDF file.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS120DC	Introduction to Adobe Animate		Focuses on entry-level skill expectations for digital animation using Adobe Animate. Covers basic animation techniques used in the creation, manipulation, and editing of animation graphics. Prepares students for the Adobe certifications related to Adobe Animate.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS120DF	Introduction to Adobe Photoshop		Focuses on entry-level skills and knowledge for digital imaging using Adobe Photoshop. Prepares students for the Adobe Certifications related to Photoshop.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS120DG	Fireworks: Web Graphics		Use of graphics software to create and edit vector and bitmap (raster) graphics. Creation and manipulation of paths and special effects. Covers slices, buttons, pop-up menus, navigation bars, and animations for use in web sites.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS120DK	Introduction to Digital Video Editing		Introduction to digital video editing comprises	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of a foundation for video import, export, and editing functions. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video.				
CIS120DL	Introduction to Adobe After Effects		Includes creating visual effects for video projects. Explores techniques and methodologies used to create shots for big budget special effects. Topics include color and light matching, keying, motion tracking, rotoscoping and working with film.	Prerequisites: A grade of C or better in CIS120DA or CIS120DK, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS120DO	Introduction to Adobe Audition		Introduction to editing audio files in a multitrack editing environment using Adobe Audition. Includes the import of files in a variety of formats that were generated using other software and how to export files.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS120DP	Adobe Acrobat Pro: Portable Document Format (PDF) Files		Introduction to creating PDF (Portable Document Format) files using Adobe Acrobat for web viewing and printing. Addresses creation of interactive PDF documents including security settings, navigation links, and form fields.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS121AB	Microsoft Command Line Operations		Use of the Microsoft command line interface: basic concepts, internal and external commands, subdirectories, and editor.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS121AE	Windows Operating System: Level I		Specific topics include Windows basics, navigating and customizing the desktop, maintaining hardware	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and software, improving performance, configurations, securing your computer, taskbar, organizing, searching and managing folders and files, installing and uninstalling applications, Internet Explorer fine tuning, security, and searching, including advanced search techniques, keyboard shortcuts, and current topics.				
CIS121AH	Microsoft PowerShell/Comman d Line Operations		Day-to-day command line administration tasks of Microsoft Windows. PowerShell used to create scripts to administer Microsoft windows environment.	Prerequisites: None. MST150++ suggested but not required.		Occ	L+L 3.0 4.0 4.0
CIS121AI	Mac Operating System		Specific topics include getting started with Mac OS; working with disks, folders, and files; installing and using applications; setting system preferences; printing, faxing, and scanning; getting and living online; using iLife; sharing a Mac with other users; creating a home network; and maintaining the Mac.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS122AE	Windows Operating System: Level II		Additional capabilities of the Windows program that configure devices and customize the presentation of the operating system. System tools, control panel utilities, the My Computer, Network Neighborhood, and Microsoft Exchange desktop icons. Other helpful utilities presented.	Prerequisites: A grade of C or better in CIS121AE or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
CIS124AA	Project Management Software: Level I		Utilization of project management software packages by managers and advanced business students to solve critical management planning	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			tasks. Evaluation of management opportunities utilizing software packages to monitor project progress and resource allocation. Includes "what-if" analyses, and preparation of management reports				
CIS124BA	Project Management Software: Level II		Advanced use of project management software. Covers features and functions to solve critical management planning tasks. Project communications, scheduling, resource allocation, tracking processes and importing and exporting data also covered. Project consolidation emphasized.	Prerequisites: A grade of C or better in CIS124AA or permission of Instructor.		Occ	L+L 1.0 1.7 1.7
CIS126AA	UNIX Operating System: Level I		Use of the UNIX operating system: system components, built-in commands, files and directories, editors, and UNIX Shell and command lines.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS126AL	Linux Operating System I		Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure a Linux-based workstation including basic network functions.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS126BA	UNIX Operating System: Level II		Installation, configuration, and maintenance of the UNIX operating system	Prerequisites: A grade of C or better in CIS126AA.		Occ	LEC 1.0 1.0 1.0
CIS126CA	UNIX Operating System: Level III		Create login scripts and batch files, and maintain system communications	Prerequisites: A grade of C or better in CIS126BA.		Occ	LEC 1.0 1.0 1.0
CIS126DA	UNIX Operating System		Use of a UNIX operating system including system components, built-in commands, files, and directories, editors, and UNIX shell and command lines. Installation, configuration, and maintenance of a UNIX	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			operating system. Create scripts and batch files, and maintain system communications.				
CIS126DL	Linux Operating System		Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure and troubleshoot a Linux-based workstation including basic network functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Fundamental abilities to achieve the entry-level industry certification covered.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS126RH	Red Hat System Administration I		Introduction to core administration skills needed to manage a Red Hat Enterprise Linux system. This Red Hat Academy course helps prepare for the Red Hat certification exams using a hands-on, task-focused curriculum.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS128	Databases in Practice Management		Use of a Practice Management Database (Electronic Health Record software) for installation and maintenance of an Electronic Health Record. Application of policies and procedures for data control, security, privacy, and confidentiality of health information in electronic health information management systems.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS129	Introduction to Microsoft Sharepoint		Designed to provide basic skills enabling the end user to navigate, manage documents and collaborate using Microsoft Sharepoint.	Prerequisites: A grade of C or better in BPC110, or CIS105, or permission of Instructor.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CIS130DA	3D Studio Max: Modeling		Introduction to 3D modeling using 3D Studio Max. Emphasis will be placed on Polygonal, Solid, and Surface modeling tools. Students will also understand concepts such as modifiers, sub-object editing, extruding, Booleans, lofting, lathing and compound object modeling. Introduction to basic lighting, texturing and rendering techniques.	Prerequisites: A grade of C or better in CIS105.		Occ	L+L 3.0 4.0 4.0
CIS130DB	3D Studio Max: Animation		Introduction to three-dimensional animation tools and principles, with an emphasis on character construction and animation. 3D Studio Max will be the primary application for use in this class.	Prerequisites: A grade of C or better in CIS105.		Occ	L+L 3.0 4.0 4.0
CIS131AA	Doing Business on the Internet		Overview of different ways businesses are taking advantage of and using the Internet. Includes how companies are selling items and services over the Internet; techniques used to expand customer contacts; marketing strategies; availability of government and financial information; future potential and disadvantages; using the Internet for customer service; establishing a World Wide Web site. Some previous computer experience preferred	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
CIS132	HTML/CSS		Overview of foundational HyperText Markup Language (HTML) and Cascading Style Sheets (CSS) coding. Create web pages and sites that adhere to web standards and best practices using current web coding standards.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CIS133AA	Internet/Web Development Level I-A		Overview of the Internet and its resources. Hands-on experience with various Internet communication tools	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS133DA	Internet/Web Development Level I		Overview of the Internet/World Wide Web (WWW) and its resources. Hands-on experience with various Internet/WWW resource discovery, information retrieval, and social media tools. Design and Development of multi-page websites using current Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS) standards..	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS136	Content Management Systems: WordPress		Overview of WordPress Content Management System. Includes hands-on design and creation of web pages and blogs for the World Wide Web. Designed to cover best practices for web site/blog creation.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS138DA	Desktop Design and Publishing Using Adobe InDesign		Use of Adobe InDesign to compose and print textual and graphic materials of high quality. Includes word processing of copy, use of graphics programs, layout of design elements, printing alternatives, and file formats.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS140	Survey of Multimedia Technology		Introduction to multimedia technology and its uses. Overview of the various hardware and software used in developing and delivering multimedia. Emphasis on how multimedia is used in education and training. Provides a basic understanding of the process used to define and develop multimedia applications.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CIS143	Introduction to Critical Infrastructure Protection		History and overview of critical infrastructure protection and its ties within the Department of Homeland Security prior to and after September 11, 2001. Focus on risk management associated with sectors specific industries and provides and overview of the public and private partnerships, along with laws and standards developed to protect critical infrastructures.	Prerequisites: A grade of C or better in CIS111 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
CIS150	Programming Fundamentals		Structured program design and logic tools. Use of computer problems to demonstrate and teach concepts using appropriate programming language.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS150AB	Object-Oriented Programming Fundamentals		Structured and Object-Oriented design and logic tools. Use of computer problems to demonstrate and teach concepts using an appropriate programming language.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS151	Computer Game Development -Level I		Introduction to object-oriented game development, game design, and game theory. Use of computer software to demonstrate and teach concepts using an appropriate game development platform to model real-time simulations and create computer games using object oriented tools. Introduction to developing PC games, educational software, and training software using windows based object oriented developments tools.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CIS154	Database Modeling and Design		Top-down, systematic approach to defining a database design based on analysis of business information and requirements. Identifying and evaluating standard data model and design patterns. Developing an entity-relationship (ER) diagram that accurately reflects the business. Mapping the ER diagram to an initial database design and revising for complex entities, attributes, and relationships.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS156	Python Programming: Level I		Introduction to Python programming. Includes general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS159	Visual Basic Programming I		Use of the Visual Basic programming language to solve problems using suitable examples from business or other disciplines	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS162	C Programming I		Beginning C programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, and unions, and disk file operations.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS162AB	C++: Level I		Introduction to C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging,	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			structured programming, and object-oriented programming		Applications - [CS]		
CIS162AC	Visual C++: Level I		Introduction to Visual C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS162AD	C#: Level I		Introduction to C# programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Occ	L+L 3.0 4.0 4.0
CIS162RS	Rust Programming		Beginning Rust programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, unions, and disk file operations.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS163AA	Java Programming: Level I		Introduction to Java programming. Includes features needed to construct Java Applets, Java Applications, control structures, methods, arrays, character and string manipulation, graphics, and object-oriented programming	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Occ	L+L 3.0 4.0 4.0
CIS164AB	Oracle: PL/SQL Programming		Writing PL/SQL procedures, functions, and packages. Creating and managing PL/SQL program units and database triggers in Oracle development environment. Managing	Prerequisites: A grade of C or better in CIS119DO or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			dependencies and manipulating large objects				
CIS165	Introduction to IOS Application Development		Introduction to iOS device programming utilizing the XCode application, and the programming languages Objective-C and/or Swift, utilizing various iOS frameworks. Understand iOS hardware and feature basics. Go through the entire design process from concept to final product delivery.	Prerequisites: A grade of C or better in CIS150++, or CIS156, or CIS159, or CIS162++, or CIS163AA, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS165DA	Introduction to Android Application Development		Beginning with an overview of Android features, this class explores the required software tools and programming techniques for developing Android device applications from creating the user interface, working with activities, intents and views, to using databases, providing data persistence, accessing device services, to debugging and publishing applications.	Prerequisites: A grade of C or better in CIS150++, or CIS156, or CIS159, or CIS162++, or CIS163AA, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS165DB	C#/VB.NET: Windows 8 App Development		Building upon desktop application development with Visual Studio using VB.NET or C# languages, developing apps for Windows 8 utilizes Extensible Application Markup Language (XAML) for interface design. Windows 8 utilizes UI design standards that are unique from previous versions. Develop apps for Windows 8 smartphones and tablets that utilize touch input methods, translate into different resolutions, states, and orientations, and can tap into mobile features such as location	Prerequisites: A grade of C or better in CIS159 or CIS162AD or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and acceleration sensors. Includes working with external data and packaging for Windows Store distribution.				
CIS165DC	Xamarin/C# Cross-Platform Development		Develop cross-platform mobile apps for iOS, Android, and Windows devices using the Xamarin.Forms Platform and C#, utilizing the Visual Studio IDE. Focusing on Xamarin.Forms projects, the course includes PCL and SAP approaches to shared code, developing interfaces with XAML or in C# code, emulator testing, data binding, backgrounding, packaging for deployment. Coding techniques include Layouts and shared controls (views), MVVM pattern, LINQ, SQLite, and Dependency Injection for platform specific coding.	Prerequisites: A grade of C or better in CIS162AD, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS166	Web Scripting/Programmin g		Software development for Web sites, including client-side script and Common Gateway Interface (CGI) scripting. Covers Web-based transaction processing and use of databases in conjunction with the Web. Includes security issues.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS166AA	Introduction to JavaScript		Introduction to basic JavaScript programming concepts including syntax. Covers Hypertext Markup Language (HTML), programming logic and debugging, as well as forms manipulation and animation.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS166AC	Web Scripting with Active Server Pages (ASP).NET		Introduction to web scripting using Microsoft's ASP.Net (Active Server Pages).	Prerequisites: A grade of C or better in CIS133DA		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Web application development using Hypertext Markup Language (HTML), ASP.Net Web Forms, programming logic, and Structured Query Language (SQL).	and (CIS159 or CIS162AD) or permission of Instructor.			
CIS166AE	Web Scripting with PHP: Hypertext Preprocessor (PHP)		Introduction to web scripting with PHP (PHP: Hypertext Preprocessor). Web application development using Hypertext Markup Language (HTML), PHP, programming logic, and Structured Query Language (SQL).	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS171	Survey of Blockchain Technology		This survey class will introduce you to the exciting world of distributed ledger technology (i.e. the blockchain), cryptocurrencies such as Bitcoin and Ether as well as smart contracts. The emphasis is on the blockchain's role in revolutionizing business. Basic knowledge of computer operation and the ability to browse the Internet are recommended.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS175SA	Interconnecting Cisco Network Devices		Procedures for interconnecting existing computer networks. Emphasis on internetworking, layer usage, and software configuration. Covers router and switch usage, protocol suite and wide-area networking, as well as Internet protocol address and routing configuration. Also includes frame relay and X.25 configuration, access list traffic management, and alternate router access information.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CIS189	Virtualization and IT Solutions for Digital Businesses		Introduction to Virtualization course is designed to teach basic virtualization computing concepts to learners. It then expands on the basic technical introduction provided and explores the concepts in more detail with an emphasis on mapping the technologies to business needs and solutions. This course is suitable for anyone who wants to know more about terms like "cloud" and "virtualization." It will serve as a foundation to build upon when students learn how to design, install and configure various cloud technologies.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS190	Introduction to Networking		Overview of networks. Emphasis on the elements of a network, current issues and products, and use of a network. Includes terminology, hardware and software components, connectivity, resource monitoring and sharing, electronic mail and messaging, and security issues. Helps prepare students for the CompTIA Network+ examination.	Prerequisites: None. Corequisites: CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS197	VMware ESXI Server Enterprise		Introduction to vSphere and VMware ESXI server in the enterprise. Covers many aspects of virtualization for VMware ESXI server administration. Designed to develop knowledge and skills required to install, configure and troubleshoot a VMware ESXI Server (vSphere) including basic network functions.	Prerequisites: A grade of C or better in [CIS105 and (BPC270 or MST150++) and (CIS126DL or CIS126RH) and (CIS190 or CNT140AB)] or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CIS198	VMware vSphere: Optimize and Scale		VMware vSphere: Optimize and Scale is designed for experienced VMware vSphere users. It teaches advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you will configure and optimize the vSphere features that build a foundation for a truly scalable infrastructure and discuss when and where these features have the greatest effect. It enables you to understand vSphere at a deeper level and how to use advanced features and controls.	Prerequisites: A grade of C or better in CIS197.		Occ	L+L 3.0 4.0 4.0
CIS200	VMware NSX: Install, Configure, Manage		This comprehensive, fast-paced training course focuses on installing, configuring, and managing VMware NSX. This course covers NSX as a part of the software-defined data center platform, implementation use cases along with features of NSX, and functionality operating at Layer 2 through Layer 7 of the OSI model. Lecture and hands-on lab activities support the student's understanding of NSX features, functionality, and on-going management and control.	Prerequisites: A grade of C or better in CIS197.		Occ	L+L 3.0 4.0 4.0
CIS201	Introduction to Operational Technology		Differences between Operational Technology (OT) and Information Technology (IT). Focus on the components and their uses within an OT system. Addresses the inherent threats, physical and cyber related, to an	Prerequisites: A grade of C or better in CIS270, or ITS110, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			OT system when connected to an IT system needed to be addressed in order to maintain security and resilience.				
CIS202	Introduction to Smart Grid Security		Focus on differences between control systems, used to control physical and computer information systems, used to process data, in the Power and Utility industry. Power Systems industry, system elements, functions and security risks are covered.	Prerequisites: A grade of C or better in (CIS270 or ITS110) and CIS143, or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
CIS203	Principles of the Risk Management Framework		History and overview of the Federal Information Security Modernization Act (FISMA) and its effect on cybersecurity management and oversight. Focus of the Risk Management Framework (RMF) and its use in the process of authorizing information systems to operate under the FISMA guidelines.	Prerequisites: A grade of C or better in CIS270, or ITS110, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS213DE	Advanced Microsoft Word: Word Processing		Using advanced word processing software features to perform tasks such as mail merge, collaboration, web pages, math functions, macros, photo enhancements, graphics, tables, forms and manage long documents.	Prerequisites: A grade of C or better in CIS113DE or (CIS113AE and CIS113BE and CIS113CE) or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS214DA	Advanced Excel for Data Analytics		Advanced Excel spreadsheet features for data analytics including advanced functions, PivotTables, Data Modelling, Dashboard creation and forecasting for Business Intelligence (BI). Includes capstone project of an interactive dashboard using a multi-table Excel Data Model.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: [CIS114DE and (CIS117DM or CIS276DA or CIS276DB)],	A basic understanding of statistics is required.	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of Instructor.			
CIS214DE	Advanced Excel Spreadsheet: Level II		Advanced Excel spreadsheet features including formatting techniques, macros and Visual Basic for applications. Templates, built-in functions and lists as well as analysis tools including Pivot Tables and Goal Seek covered. Import and export data, workgroup collaboration and Internet features of Excel emphasized.	Prerequisites: A grade of C or better in CIS114DE or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS215	Foundations of Data Analytics and Programming		Overview of data analytics and programming, concepts, terminology, and how analytics and programming are used professionally in business. Use of office application software, dashboards and Integrated Development Environments (IDEs). Includes exploration of relevant emergent technologies.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS216	Data Governance, Management, and Quality		Overview of data governance, data management, and data quality concepts and terminology, and the roles of individuals and businesses with respect to data governance, data management and data quality in analytics. Use of word processing, spreadsheet, database and presentation software. Will demonstrate and use data governance, data management and data quality frameworks and models.	A grade of C or better required in all Prerequisites. Prerequisite or Corequisites: CIS215 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS217AM	Advanced Microsoft Access: Database Management		Advanced database concepts including database design, primary and secondary key selection and	Prerequisites: A grade of C or better in CIS117CM or CIS117DM.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			relationships between tables. Queries, sub forms, macros, events, Visual Basic modules and Access Internet features also covered				
CIS220DC	Flash: Advanced Animation and ActionScript		Advanced Flash programming, action scripting, tweening, advanced buttons and user input, movie clips, using dynamic sound and text, managing information flow, Object-Oriented Programming concepts in relation to Flash.	Prerequisites: A grade of C or better in CIS120DC or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS220DF	Adobe Photoshop Level II: Advanced Digital Imaging		Goes beyond the basic use of palettes, selections, layers, menus, and tool options, and focuses on using Photoshop software's advanced features to manipulate and correct digital and digitally produced images.	Prerequisites: A grade of C or better in CIS120DF or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS220DK	Advanced Adobe Premiere		Includes an in-depth study of digital video editing using premiere, including preproduction, production and post production. Advanced techniques into a capstone project. Emphasis placed on enhanced workflow processes, integration of other applications into Premiere, multiple output formats, timesaving quick key setup and advanced production and editing tools.	Prerequisites: A grade of C or better in CIS120DA, or CIS120DK, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS221AB	Microsoft Power Shell		Microsoft Power Shell (PS) is used to aid system administrators of Microsoft Network Operating Systems (NOS) in automating many administrative tasks through shell script automation.	Prerequisites: A grade of C or better in BPC121AB CIS121AB or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
CIS224	Project Management Microsoft Project for Windows		Introduction to project management concepts while working with MS	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Project to solve complex project management networks, including creating Gantt and PERT charts, tracking project progress, planning for restrictions, and integrating MS Project with other software packages such as Excel, Word, Powerpoint, and cc Mail.				
CIS225	Business Systems Analysis and Design		Investigation, analysis, design, implementation and evaluation of business computer systems.	Prerequisites: Any programming language or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS225AB	Object-Oriented Analysis and Design		Methodologies and notations for fundamental object-oriented analysis and design including use cases, objects, classes, stereotypes, and relationships. Object-oriented iterative process for system development. A continuous application development exercise for applying the analysis and design concepts.	Prerequisites: Any programming language or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS226AL	Internet/Intranet Server Administration-Linux		Configuration and management of internet/intranet services, including the Apache web server, Simple Mail Transfer Protocol servers (SMTP), Structured Query Language (SQL server), File Transfer Protocol (FTP), Network Time Protocol (NTP), and other network services used in home and small business environments. Covers basic security configuration and testing.	Prerequisites: A grade of C or better in CIS126 (any module) or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS227	Assembly Language		Concepts and use of the Assembly programming language, including basic arithmetic	Prerequisites: A grade of C or better in CIS162++ or		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			operations, flow control, and memory management.	permission of Instructor.			
CIS228	Advanced Databases for Practice Management		Advanced installation, configuration and use of Practice Management Database (Electronic Health Record software) for implementation and maintenance of for vendor specific and open source Electronic Health Records (EHRs). Configuration of policies and procedures for data control, security, privacy, and confidentiality of health information in electronic health information management systems.	Prerequisites: A grade of C or better in CIS128 or permission of Instructor.		Occ	LEC 3.0 4.0 4.0
CIS230DA	3D Studio Max: Materials		Emphasis on creating and applying materials and textures to three-dimensional environments. Techniques for creating skins, surfaces, and shading types for objects, environments and characters will be explored. Original textures, both life-like and imaginary, will be created using 3D Studio Max and a 2D computer graphics software application.	Prerequisites: A grade of C or better in CIS130DA or CIS120DF or CIS120DG or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS230DB	3D Studio Max: Lighting and Rendering		Emphasis on lighting and rendering for three-dimensional environments. Techniques for illuminating scenes and characters will be explored. Prepare scenes for rendering to video, film and real-time rendering using 3D Studio Max.	Prerequisites: A grade of C or better in CIS130DA or permission of instructor.		Occ	L+L 3.0 4.0 4.0
CIS231	Ethereum Blockchain Application Development		Exploration of the theory behind Ethereum blockchain technology and the development of Ethereum smart contracts. In-depth	Prerequisites: A grade of C or better in CIS171 or permission of Instructor.	CIS156, CIS159, CIS162++, CIS163AA, or equivalent	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			emphasis on programming concepts relating to the creation and eventual deployment of smart contracts to the Ethereum blockchain.		skills are recommend ed.		
CIS233AA	Internet/Web Development Level II-A		Design and creation of pages on the World Wide Web using hypertext markup language (HTML). Hands-on experience authoring HTML and preparing sophisticated web documents.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
CIS233AC	Internet Web Development: Dreamweaver Level I		Design and development of websites using Dreamweaver. Hands-on experience designing, developing, testing, and publishing web documents that contain client-side web technologies.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
CIS233BA	Internet/Web Development Level II-B		Hands-on experience designing Web presentations using advanced markup languages, programming languages, scripts, and multimedia	Prerequisites: A grade of C or better in CIS233AA or permission of Instructor.		Occ	LEC 1.0 1.0 1.0
CIS233DA	Internet/Web Development Level II		Plan, design and create web sites using HTML and Advanced Cascading Style Sheets (CSS). Expedite the development process using CSS frameworks and libraries. Enhance user experience and web site functionality using supporting technologies. Exploration of User Interface (UI) and User Experience (UX), best practices, accessibility, strategies, and careers in web design and development.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS233DC	Internet Web Development: Dreamweaver		Design and development of comprehensive and interactive websites using Dreamweaver. Hands-on experience	Prerequisites: A grade of C or better in CIS132 or CIS133DA or		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			designing, developing, testing, and publishing web documents that contain various client-side web technologies. Assists in preparing students for the Adobe Certifications related to Adobe Dreamweaver.	permission of Instructor.			
CIS234	XML Application Development		The use of Extensible Markup Language (XML) to make documents smarter, simplify Web automation, and to communicate between databases, both within and between corporations. Includes techniques for XML generation, data extraction and sharing, and transformation and managing of XML files.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS235	e-Commerce		Introduction to Electronic Commerce on the Internet. Designing an electronic storefront including web page content and development, e-commerce site marketing, advertisement, legal and security considerations, credit card and other debit transaction covered. Also includes current issues in e-commerce.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS236	Web-Based Teaching and Learning I		Experience using a web-based learning environment from an online student's perspective. Use communication tools, submit assignments, use evaluation tools, create homepages, and navigate online-learning environment. Introduction to basics of online pedagogy. Hands-on experience with a web-based learning environment.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CIS237	Web-Based Teaching and Learning II		Create an online or hybrid course using a web-based learning environment. Create, prepare, and manage content and resource files; locate and add resources; and manage a course homepage. Add, delete, and revise tools; create, maintain, and release quizzes and assignments; and manage a course. Track students, data, and revise student grades, submissions, and attendance. Hands-on experience with creating a course using a web-based learning environment	Prerequisites: A grade of C or better in CIS236 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS238DL	Linux System Administration		Managing Linux Operating Systems including sophisticated manipulation of file structures, backup systems, printing processes, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, kernel customization, and system resource control. Preparation for industry certifications such as the CompTIA Linux+, the Red Hat Certified System Administrator (RHCSA), the Red Hat Certified Engineer (RHCE) and the Linux Professional Institute (LPIC-1).	Prerequisites: A grade of C or better in CIS126DL or CIS126RH or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS238RH	Red Hat System Administration II		Continue to develop core administration skills needed to manage a Red Hat Enterprise Linux system. This Red Hat Academy course helps to prepare students for the Red Hat certification exams using	Prerequisites: A grade of C or better in CIS126RH, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			a hands-on, task-focused curriculum.				
CIS239DL	Linux Shell Scripting		Linux Shell Scripting syntax and methods including the automation of system tasks as well as interpreted user-level programming. Course includes the Linux Borne Again Shell (BASH) as well as a variety of industry competitors.	Prerequisites: A grade of C or better in CIS238DL or CIS238RH or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS240	Local Area Network Planning and Design		Analysis of the needs and requirements for a local area network (LAN). Emphasis on basic systems analysis and design for a local area network, selection of appropriate hardware and software components. Includes current and future issues, needs analysis, cost estimation, selection of connectivity and network components, and issues relating to access, security, and support	Prerequisites: A grade of C or better in CIS190 or MST140 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
CIS240DL	Linux Network Administration		In depth networking based on Linux servers and the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite. Integrating Linux servers and workstations into a network environment with multi-platform network operating systems including a variety of open-standard and proprietary protocols. Preparation for industry certifications such as the CompTIA Linux+, the Red Hat Certified System Administrator (RHCSA), the Red Hat Certified Engineer (RHCE) and the Linux Professional Institute (LPIC-1).	Prerequisites: A grade of C or better in CIS238DL or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS240RH	Red Hat System Administration III		Provides solid understanding of how to	Prerequisites: A grade of C		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			automate services on a Linux system. Covers use of Ansible to automate provisioning, configuration, application deployment, and orchestration on Red Hat Enterprise Linux 8. Content aligns with the Red Hat Certified Engineer (RHCE - EX294) exam, a professional certification.	or better in CIS238RH or permission of Instructor.			
CIS243	Internet/Web Development Level III		Development of interactive websites with graphics, video, and sound using advanced web design techniques and tools. Design theory for maximizing web readership, interactive and multimedia elements, speed and accessibility optimization, and intuitive user interfaces	Prerequisites: A grade of C or better in CIS233DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS250	Management of Information Systems		The study of business information systems and its management, communication, e-business strategies, emerging technologies, database concepts, and project management. Overview of systems analysis and design. Learn about the competitive and strategic uses of information systems and how they are transforming organizations and their management.	Prerequisites: A grade of C or better in CIS105.		Occ	L+L 3.0 4.0 4.0
CIS251	Computer Game Development -Level II		Advanced object-oriented game development, advanced game design, and advanced game theory. Use of game development software tools to demonstrate advanced concepts for modeling real-time simulations and creating computer games using object oriented	Prerequisites: A grade of C or better in CIS151 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development tools. In depth coverage of game programming (scripting) techniques, and decision logic using object oriented techniques.				
CIS252	Introduction to Kubernetes Administration		Provides students skills and knowledge to perform the responsibilities of a Kubernetes administrator. Includes covering the cluster architecture, installation, configuration, workloads, scheduling, services, networking, storage and troubleshooting. Helps students prepare for the Certified Kubernetes Administrator (CKA) certification.	Prerequisites: A grade of C or better in CIS238DL or CIS238RH or permission of Instructor.		Occ	L+L 4.0 5.0 5.0
CIS254	Introduction to Kubernetes Application Development		Provides students skills and knowledge to perform the responsibilities of a Kubernetes application developer. Helps students prepare for the Certified Kubernetes Application Developer (CKAD) certificate.	Prerequisites: A grade of C or better in CIS126DL or CIS126RH or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS255	Introduction to Kubernetes Security		Provide students with skills and knowledge on a broad range of best practices for securing container-based applications and Kubernetes platforms during build, deployment, and runtime. Helps students prepare for Kubernetes Security Specialist (CKS) Certification.	Prerequisites: A grade of C or better in CIS252 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS256	Python Programming Level II		Advanced Python object-oriented programming concepts and applications. Emphasis on code documenting, versioning, unit testing strategies, and security practices for Python project/package development. Includes Python applications for	Prerequisites: A grade of C or better in CIS156 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			data analysis, networking, database manipulation, and web application development.				
CIS256CN	Python for Cybersecurity and Networking		Focus on practical applications of Python frameworks and libraries to support offensive and defensive cybersecurity operations and the management of network devices.	Prerequisites: A grade of C or better in (CIS156 and CNT140AB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS256DA	Python for Data Analysis		Introduction to data analysis concepts using Python's rich set of tools, libraries, and packages. Includes basic data analysis, creation of meaningful data visualizations, and advanced topics such as supervised and unsupervised machine learning techniques.	Prerequisites: A grade of C or better in CIS156 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS259	Visual Basic Programming II		Use of the Visual Basic programming language to identify and solve advanced problems using suitable examples from business or other disciplines.	Prerequisites: A grade of C or better in CIS159 or permission of Instructor.		Occ	LEC 3.0 4.0 3.7
CIS260BI	Data Visualization: Power Business Intelligence (BI)		This data visualization course covers the graphic representation of data and how to effectively and efficiently communicate it from singular and disparate data sources using Power Business Intelligence (BI). Helps students prepare for the Microsoft Power BI Data Analyst certification.	Prerequisites: A grade of C or better in CIS114DE, CIS215, and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS260TB	Data Visualization: Tableau		This data visualization course covers the graphic representation of data and how to effectively and efficiently communicate it from singular and disparate data sources using Tableau. Helps students prepare for the Tableau Certified Data Analyst certification.	Prerequisites: A grade of C or better in CIS114DE, CIS215, and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CIS261	Hyperledger Blockchain Application Development		Exploration of the theory behind Hyperledger blockchain technology and the development of Hyperledger smart contracts. In-depth emphasis on programming concepts relating to the creation and eventual deployment of smart contracts to the Hyperledger blockchain.	Prerequisites: A grade of C or better in CIS171 or permission of Instructor.	CIS156, CIS159, CIS162++, CIS163AA, or equivalent skills are recommend ed.	Occ	L+L 3.0 4.0 4.0
CIS262AB	C++: Level II		Advanced level C++ programming with emphasis on arrays, data management, dynamic memory allocation, object-oriented programming concepts, input/output operations, libraries, and debugging techniques. Includes overview of other advanced applications of C++.	Prerequisites: A grade of C or better in CIS162AB or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS262AD	C# Level II		Advanced C# programming with emphasis on data structures, dynamic memory allocation, object-oriented programming, user interfaces, and database processing. Overview of web applications, network programming, and reporting tools	Prerequisites: A grade of C or better in CIS162AD or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS263AA	Java Programming: Level II		Intermediate Java programming. Includes features needed to construct object-oriented programming, multithreading, multimedia, files, streams and data structure	Prerequisites: A grade of C or better in CIS163AA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS265	Advanced iOS Application Development		Advanced iOS device programming utilizing the Swift/XCode application, and the programming languages Objective-C and/or Swift, utilizing various iOS frameworks. Understand iOS hardware and	Prerequisites: A grade of C or better in CIS150++ and CIS165, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			feature basics. Go through entire design process from concept to final product delivery.				
CIS265DA	Advanced Android Application Development		Advanced Android device programming utilizing an Android Integrated Development Environment, and an Android-focused programming language such as Java or Kotlin, utilizing various advanced activity layouts, views, and intents. Covers advanced Object Oriented Programming (OOP) practices, local and cloud-based database backends, threading, incorporating device features and sensors, and unit testing.	Prerequisites: A grade of C or better in CIS165DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS266	Network Integration Capstone		Application of project management, installation and troubleshooting to integrate multiple operating systems. Topics include: diagnostic and troubleshooting procedures, security vulnerability and penetration software to installation.	Prerequisites: A grade of C or better in [(CIS238DL or CIS238RH) and (CIS240DL or CIS240RH)], or CNT160AB, or [(MST155DC and MST157DC) and (CIS270 or CIS271DL or CIS271RH or CNT205)], or associated industry certifications, or permission of Instructor.		Occ	L+L 4.0 5.0 5.0
CIS267	Pega System Architect Essentials		An overview of the Pegasystems low-code platform for Artificial Intelligence (AI)-powered decisioning and workflow automation. Topics covered will include case management, data and	Prerequisites: A grade of C or better in (CIS126DL or CIS126RH), CIS133DA, CIS263AA, and		Occ	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			integration, security, Dev-Ops, the user experience, application development, reporting, and mobility. The course will prepare you to take the Certified Pega System Architect (CPSA) exam. Completing the CPSA exam is a requirement to pass the course.	CIS276DA or permission of Instructor.			
CIS270	Essentials of Network and Information Security		Threats to security of information systems; responsibilities and basic tools for information security, including communication security, infrastructure security, organizational security and basic cryptography. Introduction to the language of network security and hardware, software and firmware components of an information security system for local, metropolitan, enterprise, and wide area networks. Helps prepare participants for the Comptia Security+ exam and the GIAC Security Essentials Certificate (GSEC).	Prerequisites: A grade of C or better in BPC270 or CIS190 or CNT140AB or MST150++ or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS271DL	Linux Security		Implementing in-depth security methods and techniques in a Linux-based network environment. Utilize programs, utilities and configuration techniques to provide user-level, file system, and network security. Gain knowledge in a variety of security cracking techniques and how to guard against them. In all aspects of security, the standard of practicing professional ethics seriously emphasized. Preparation for industry certifications	Prerequisites: A grade of C or better in CIS240DL or Permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC				
CIS271RH	Red Hat System Administration IV		Provides solid understanding on containers, containerized applications, and orchestration of containers using Kubernetes and Red Hat OpenShift on Red Hat Enterprise Linux.	Prerequisites: A grade of C or better in CIS238RH or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS275DL	Linux Capstone		The Linux Capstone course aggregates the skills, knowledge, communication, and critical thinking skills from the Linux Program. This course is to emulate a production environment that prepares students to work as a Linux Systems Administrator. The course helps to prepare students for Linux Industry certification exams.	Prerequisites: A grade of C or better in CIS240DL, or CIS240RH, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS276DA	MySQL Database		A broad overview of the MySQL database. Includes Structured Query Language (SQL) instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install MySQL, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies.	Prerequisites: A grade of C or better in CIS105, or CIS117DM, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS276DB	SQL Server Database		A broad overview of the Microsoft Structured Query Language (SQL) Server database. Includes SQL instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills	Prerequisites: A grade of C or better in CIS105, or CIS117DM, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			required to install SQL Server, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies.				
CIS276DC	NoSQL		A broad overview of Not Only SQL (NoSQL) databases. Contrast NoSQL databases to the Structured Query Language (SQL) databases. Includes NoSQL instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install NoSQL Servers, model and create NoSQL databases, manage users, authentication, and stored procedures equivalents, and develop backup/restore strategies.	Prerequisites: A grade of C or better in CIS215 and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS280	Current Topics in Computing		Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CIS280AA	Current Topics in Computing		Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CIS280AB	Current Topics in Computing		Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
CIS282AA	Volunteerism for Computer Information Systems: A Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CIS282AA may be repeated for a total of six (6) CIS282 credit hours. Standard grading available according to	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					procedures outlined in catalog.		
CIS284	Certified Internet Web (CIW) Associate Certification Preparation Course		Explain and implement Internet technologies, network infrastructure, and protocols. Utilize a variety of markup languages and web technologies to design web pages. Utilize job skills such as project management. Explore best practices/issues for web design, publishing, and e-commerce. Prepare for Certified Internet Web (CIW) Associate Examinations.	Prerequisites: A grade of C or better in CIS233DA or permission of Instructor.		Occ	L+L 4.0 5.0 5.0
CIS285	Computer Information Systems Capstone Project		Students will create a capstone project with opportunities for individualized research and application of aggregate technology and professional knowledge and skills obtained throughout the student's program of study. Focus on communication, problem solving, critical thinking, and project management skills.	Prerequisites: Permission of Program Director or Instructor.		Occ	L+L 3.0 4.0 4.0
CIS286	Technology Team Peer Mentorship		Students will have an opportunity to mentor other students and work as a team to develop and support a technology project related to their program of study paralleled by professional expertise and guidance from team members, faculty, and/or industry mentor. Focus on application of technology knowledge to the development of a team project to solve real world technology problems/needs with an innovative technology focus. Focus on the team experience and project and workforce	Prerequisites: A grade of C or better in EPS151. Corequisites: CIS285.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development, management and research, as well as mentoring and collaborative professional behaviors needed to facilitate innovations for profitable commercial feasibility.				
CIS288	Digital Design Portfolio		Procedures for compiling, evaluating, and selecting prior learning experiences and artifacts for a digital portfolio. Covers techniques for the design, production, and publishing of an online portfolio documenting prior learning. Includes techniques for presenting the digital portfolio for evaluation.	Prerequisites: A grade of C or better in BPC/CIS133 DA and (BPC/CIS120 DB or BPC/CIS120 DF or BPC/CIS138 DA) or permission of Instructor.		Occ	L+L 2.0 3.0 3.0
CIS290AA	Computer Information Systems Internship		Work experience in business or industry	Prerequisites: Permission of Instructor.		Occ	LAB 1.0 6.0 0.0
CIS290AB	Computer Information Systems Internship		Work experience in business or industry	Prerequisites: Permission of Instructor.		Occ	LAB 2.0 12.0 0.0
CIS290AC	Computer Information Systems Internship		Work experience in business or industry	Prerequisites: Permission of Instructor.		Occ	LAB 3.0 18.0 0.0
CIS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
CIS296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
CIS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
CIS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
CIS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
CIS314	Data Privacy and Integrity		Overview of data privacy and data integrity, history, concepts, and	Prerequisites: A grade of C or better in		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			terminology, and the importance of each in the analytics and programming professions. Discussion of international, national, state and local regulations and guidelines pertaining to data privacy and data integrity. Use of office application software and current technology. Exploration of relevant and emerging regulations, guidelines, and technologies.	CIS215 or permission of Instructor.			
CIS315	Data Protection		Overview of data protection concepts and terminology, and the roles of individuals and businesses with respect to the safeguarding of data and the mitigation of data corruption, data compromise and data loss. Use of word processing, spreadsheet, database and presentation software. Will demonstrate and use data protection frameworks, models and relevant tools.	Prerequisites: A grade of C or better in CIS156, CIS162AD, CIS215, and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS316	Descriptive Analytics		Study of descriptive analytics and how to apply statistical tools and methods on historical and current datasets and multi-domain cases. Interpret current data, identify changes, trends and commonalities in data, and how to ascertain differences in performance over time while preparing data for advanced analysis.	Prerequisites: A grade of C or better in CIS114DE, CIS215, CIS256DA, and (CIS276DA or CIS276DB), or permission of Instructor. Prerequisites or Corequisites: CIS214DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS317	Data Complexity		Intricacies of enterprise data and how to apply knowledge (background,	Prerequisites: A grade of C or better in		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			concepts and experiences from prior courses) and skills (Integrated Development Environment (IDE) tools, and programming languages) on complex integrated and non-integrated disparate datasets, by testing, designing, and creating algorithms that lead to improved decision making.	CIS214DA, CIS215, CIS256DA, CIS260BI, CIS260TB, CIS262AD, and (CIS276DA or CIS276DB), or permission of Instructor.			
CIS318	Predictive Analytics		Study of predictive analytics and how to apply statistical tools and methods on historical and current datasets and multi-domain cases previously analyzed for the purposes of yielding accurate inferential and predictive analytic results. Apply advanced and emergent statistical tools and methods, while modeling practices and processes, that facilitate the maturation of organizational analytic capabilities toward a desired future state. Predict analytical outcomes that are repeatable, and consistent with hypotheses, which lead to improved business decisions.	Prerequisites: A grade of C or better in CIS215, CIS256, CIS256DA, CIS316 and GBS220, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS324	Information Technology Project Management		Covers the general aspects of project management and emphasizes the important special considerations which apply to information technology projects. Covers principles for managing multiple IT projects and project portfolios, including use of waterfall and agile methodologies. Explores best practices for project management in	Prerequisites: A grade of C or better in CIS224.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			information technology departments. Includes analysis of budgets, risk management, and cost estimation / justification techniques.				
CIS350	Advanced Information Technology Management		Course expands upon fundamental concepts and focuses on management of information technology systems in organizations. Explores management processes and procedures for planning, implementation, and operation of information systems with an emphasis on operational management. Examines real world successes and failures of technology management. Equips students with knowledge of current information technology management and decision support systems.	Prerequisites: A grade of C or better in CIS250.		Occ	LEC 4.0 4.0 4.0
CIS360	Data Analysis		Introduces processes of obtaining, preparing, analyzing and presenting visualized data using appropriate software. Provides an understanding of data interpretation and its practical application in a business. Introduces data governance strategies ensuring data quality throughout the complete lifecycle of the data. Covers data analytics and mining techniques within the context of supporting data-driven decision making.	Prerequisites: A grade of C or better in CIS156, CIS215, and ((MAT140 or MAT141 or MAT142 or MAT145 or MAT146), or higher level mathematics course, or appropriate district placement).		Occ	LEC 4.0 4.0 4.0
CIS376	Database Management and Security		Overview of the functional areas, concepts and techniques of database management and security. Topics include	Prerequisites: A grade of C or better in CIS119DO, or CIS276DA,		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			business and regulatory requirements, database architecture and design, access control, retrieval concepts, data auditing, incident response and optimal database system performance, security and availability. Explores new directions in database management and security.	or CIS276DB.			
CIS390	Network Management		Course explores principles of network management architecture within the Information Technology (IT) life cycle, including network management principles; network design and optimal performance; network maintenance, common problems and solutions; business practices in network management; and effective stakeholder communication. Students will work individually and in teams to evaluate and design network systems and solutions to address business problems and end user needs.	Prerequisites: A grade of C or better in CIS105, and (CNT140AB or CIS190).		Occ	LEC 4.0 4.0 4.0
CIS411	Ethics, Regulations, and Legal Issues in Information Technology		Covers ethical and regulatory issues in information technology (IT) and creates a foundation for analyzing and addressing evolving legal concerns. Provides an overview of laws concerning computer and network security, business policy, and legal boundaries for systems authorization. Examines ethical, legal, and professional ramifications on leadership practices in an organization's technology environment.	Prerequisites: A grade of C or better in CIS111 or ITS120.		Occ	LEC 3.0 3.0 3.0
CIS415	Big Data		Study of the fundamentals and	Prerequisites: A grade of C		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			characteristics of Big Data. Evaluation of existing Big Data processing platforms and tools. Developing skills to handle and implement Big Data projects, including machine learning concepts.	or better in CIS256, CIS256DA, CIS262AD and CIS318, or permission of Instructor.			
CIS416	Presentation of Analytics and Programming Results and Solutions		Use of data analytic tools, programming methods, nominal (components/elements), and ordered steps to proficiently and effectively deliver comprehensive results and understanding, ranging from simple to complex data. Guide technical and non-technical audiences in understanding data and establish opportunities for the audience to believe it. Mitigate the problems that can be caused by poor decision making due to mis-understandings, mis-interpretations, mis-representations and disconnections among organizational members with respect to the meaning of results.	Prerequisites: A grade of C or better in CIS256, CIS260BI, CIS260TB, CIS262AD, (CIS276DA or CIS276DB), CIS317, and CIS318, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS470	Enterprise Cyber Security		Provides overview of various concepts and principles in information technology (IT) security and the management of IT security plans to mitigate information security (IS/IT) related security risks. Covers evaluation of cybersecurity plans and policies and the impact of laws, regulations, and codes of professional behavior with respect to cybersecurity. Includes preparation of responses to cybersecurity incidents and overview	Prerequisites: A grade of C or better in CIS270.		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of various concepts of IT security.				
CIS475	Emerging Trends in Information Technology		Course focuses on identification of and research in the emerging trends in Information Technology (IT). Selected topics could be within the areas of Kubernetes, Edge Computing, Ethics in Artificial Intelligence (AI), Blockchain, Automation and AI, Telehealth Solutions, Internet of Things (IoT), Augmented Reality, Hyperautomation, Development Operations (DevOp), 5G, and/or other emerging issues. Course includes discussion of contemporary topics, research in selected areas, and course projects related to student interests.	Prerequisites: A grade of C or better in (CIS190 or CNT140AB) and CIS270.		Occ	LEC 4.0 4.0 4.0
CIS480	Data Analytics and Programming Capstone		Capstone project with opportunities for individualized research and application of aggregate technology and professional knowledge and skills obtained throughout the student's program of study. Focus on communication, problem solving, critical thinking, and project management skills.	Prerequisites: A grade of C or better in CLD120, CIS216, CIS224, CIS256, CIS262AD, CIS260BI, CIS260TB, (CIS276DA or CIS276DB), CIS315, CIS317, and CIS318, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CIS490	Applied Data Analytics and Programming Internship		Work experience in business or industry with an emphasis on data analytics and programming for business, not-for-profit, or industry. Application and aggregate of technical knowledge, communication, problem	Prerequisites: Enrollment in final semester before award completion and permission of Department/ Division		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			solving, and critical thinking with a data analytics and programming focus.	Chair, or Program Director or Instructor.			
CLD110	Amazon Web Services Cloud Foundations		Provides a detailed overview of cloud concepts, Amazon Web Services (AWS) core services, security, architecture, pricing, and support. Intended for students who seek an overall understanding of cloud computing concepts, independent of specific technical roles. Helps to prepare students for the AWS Certified Cloud Practitioner exam.	Prerequisites: None. CIS105 suggested but not required.		Occ	L+L 3.0 4.0 4.0
CLD120	Amazon Web Services Cloud Architect Associate		Fundamentals of building IT infrastructure on Amazon Web Services (AWS). Focus on how to optimize use of the AWS Cloud by understanding AWS services and best practices for the AWS Cloud and how they fit into cloud-based solutions. Covers design patterns for architecting optimal IT solutions on AWS, as well as strategies and services implemented on AWS.	Prerequisites: A grade of C or better in CLD110 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CLD130	Amazon Web Services Cloud Developing		Designed to provide technical knowledge and skills in cloud technology that can be developed with Amazon Web Services (AWS) software development kit (SDK). Focus on best practices for building and deploying secure applications in the AWS Cloud. Helps to prepare students for the AWS Certified Developer - Associate examination.	Prerequisites: A grade of C or better in CLD120 or equivalent AAWS Certified Solutions Architect - Associate certification. CLD110 and CNT140AB recommended.	Knowledge of at least one programming language, such as Python, C++, JavaScript, Ruby, C# (C-Sharp), is recommended.	Occ	L+L 3.0 4.0 4.0
CLD140	Amazon Web Services Cloud Operations		Designed to provide technical information and skills required to implement automatable	Prerequisites: A grade of C or better in CLD120 or	Knowledge of at least one programming	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and repeatable deployments of networks and systems on Amazon Web Services (AWS). Describes specific AWS features and tools related to configuration and deployment. Emphasis on best practices in the AWS Cloud and recommended design patterns, problem-solving and troubleshooting. Helps prepare students for the AWS Certified SysOps Administrator - Associate exam.	equivalent AAWS Certified Solutions Architect - Associate certification. CLD110 and CNT140AB recommende d.	g language, such as Python, C++, JavaScript, Ruby, C# (C-Sharp), is recommend ed.		
CLD417	Cloud Analytics		Conduct cloud analysis with practical, real-world examples. Analyze data sets and create visual representation of that data, using a case-study approach. Hands-on experience working with cloud data at scale.	Prerequisites: A grade of C or better in CLD120, CIS215, CIS156, CIS162AD, CIS260BI, CIS260TB, and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
CNS102	Foundations for Apprenticeship		The demographics and industry projections of the building and construction trades. Structure and purpose of registered apprenticeship. Apprenticeship roles and responsibilities. Overview of fluctuation in employment and finances inherent to the construction trades. Emphasis on preparation for periods of high and low employment debt management within registered apprenticeship.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
CNS110	Green Construction Overview		Overview of 'green construction'. Green energy vs. green	Prerequisites: Registered apprentice		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			building, U.S. Green Building Council (USGBC) and the building life cycle, five main areas of green building standards, Leadership in Energy and Environmental Design (LEED) accreditation, and LEED certification.	status or permission of the Apprenticeship Coordinator.			
CNS182	Construction Estimating and Print Reading		Analysis and interpretation of construction drawings (blueprint reading); interpretation of symbols, annotations, conventions, and terms of trade. Emphasizes learning quantities of material, equipment, and labor for a construction project. Includes a focus on procedures used to apply timely unit costs. Covers Occupational Safety and Health Administration (OSHA) Safety Standards and their impact on construction cost.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CNS200	Construction Management: Field Operation		Procedures and methods used by construction contractors to manage field operation during various phases of a project. Includes project team, job scheduling, personnel relations, use of the construction documentation on site, inspection techniques, safety issues, scope and supervision of the overall construction process.	Prerequisites: A grade of C or better in CON181 and CON244, or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
CNS201	Construction Management: Office Operation		Skills and techniques required to manage construction office operations. Includes establishing and financing the business, marketing, office operations, and maintaining relationships with other construction	Prerequisites: A grade of C or better in (CON130, CON181, and CON244), or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			industry entities through a systematic planning approach.				
CNS205	Sustainable Construction/LEED Certification		Fundamentals of major components of sustainable design and construction, including energy, health care facilities, cultural and natural resources, and other environmental and economic issues of sustainable built environments. Importance of a collaborative team effort with owner, developers, architects, engineers, and constructors will be integrated into the course. Issues impacting schedule and budgets of sustainable construction projects will be analyzed. Prepares student for the Leadership in Energy and Environmental Design (LEED) Certification Exam.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CNS230	Computer Aided Design and Drafting (CADD) 3D for Construction & Architecture (CADD II)		Design, construction, and annotation of three-dimensional objects for construction and architecture industries using AutoCAD software.	Prerequisites: A grade of C or better in COM130 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
CNS240	Advanced Computer Aided Design and Drafting (CADD) for Construction & Architecture (CADD III)		Use of advanced AutoCAD two- and three-dimensional commands along with various customization codes and techniques specific to architecture and construction industries	Prerequisites: A grade of C or better in CNS230 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
CNS250	Civil Drafting I: Civil 3D		Application of civil drafting software (Civil 3D) for civil drafting and surveying. Use of coordinating geometry and survey point databases to create topographical maps. Interpreting and delineating topographical data and maps for site	Prerequisites: A grade of C or better in CON130 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and route work. Applying the basics of coordinate geometry (COGO) to surveying language.				
CNS251	Civil Drafting II: Civil 3D		Advanced knowledge and skill in using civil drafting software (Civil 3D) in right-of-way improvement. Use of base maps in utility and street improvement; use of street improvements in creation of maps and profiles; use of map and profiles in utility improvements.	Prerequisites: A grade of C or better in CNS250, or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
CNS252	Civil Drafting III: Civil 3D		Use of civil drafting software (Civil 3D) for site development. Includes use of engineering and surveying software in analysis and computation of earthwork and creation of site drawings.	Prerequisites: A grade of C or better in CNS251, or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
CNS271	Home Inspection Structure		Home inspection practices for foundation, footings, roof, and framework, including floor, wall, and ceiling. Covers structural considerations and reporting practices.	Prerequisites: A grade of C or better in (CON244 and CON262) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
CNS272	Home Inspection Plumbing, Electrical and HVAC		Home inspection practices for plumbing, electrical, heating, cooling, and air conditioning, and defects of exposed parts of these systems in a house structure. Includes components of systems and reporting practices.	Prerequisites: A grade of C or better in CON244 and CON262, or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
CNS273	Home Inspection: Insulation and Interiors		Home inspection practices for insulation and interiors, including walls, ceilings, floors, windows, and doors, and their possible defects. Covers reporting practices.	Prerequisites: A grade of C or better in CON244 and CON272, or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
CNS274	Home Inspection: Roofing and Exteriors		Home inspection practices for roofing and	Prerequisites: A grade of C		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross References	Description	Requisite	Course Note	Subject Type	Credits Periods Load
			exteriors of a house, and their defects. Covers reporting practices.	or better in (CON244 and CON262) or permission of Department or Division.			
CNS282AA	Volunteerism for Construction: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	CNS282AA may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 1.0 1.0 0.0
CNS282AB	Volunteerism for Construction: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	CNS282AB may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 2.0 2.0 0.0
CNS282AC	Volunteerism for Construction: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 3.0 3.0 0.0
CNS285	Introduction to Residential Plan Review		Application of international model code (building, mechanical, plumbing, and electrical)	Prerequisites: A grade of C or better in (CON244		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to contract documents for one- and two-family dwelling residential construction.	and CON262) or permission of Department or Division.			
CNS286	Introduction to Commercial Plan Review		Application of international model codes (building, mechanical, plumbing, and electrical) to contract documents for commercial construction.	Prerequisites: A grade of C or better in (CON244 and CON263) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
CNS290AA	Construction Internship	CON290A A	Construction internship office/field experience with private/public agencies or citizen volunteer groups. Eighty (80) hours of designated work experience.	Prerequisites: Permission of Department or Division.	CNS290AA may be repeated for a total of three (3) credits. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 1.0 6.0 0.0
CNS290AB	Construction Internship	CON290A B	Construction internship office/field experience with private/public agencies or citizen volunteer groups. One hundred and sixty (160) hours of designated work experience.	Prerequisites: Permission of Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 2.0 12.0 0.0
CNS290AC	Construction Internship	CON290A C	Construction internship office/field experience with private/public agencies or citizen volunteer groups. Two hundred and forty (240) hours of designated work.	Prerequisites: Permission of Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 3.0 18.0 0.0
CNS290AE	Construction Internship		Construction internship office/field experience with private / public agencies or citizen volunteer groups.	Prerequisites: Permission of Department or Division.		Occ	LAB 5.0 25.0 0.0
CNS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and	Prerequisites: Completion of at least twelve (12)		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	college credits minimum 2.6 grade point average and ability to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
CNS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and ability to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one	COMMON COMPETE NCY COURSE	Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to students major or career interest or with permission of Instructor.			
CNS296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and ability to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
CNS296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and ability to obtain a position	COMMON COMPETE NCY COURSE	Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
CNS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
CNS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
CNS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
CNT140AB	Introduction to Networks		Focus on the architecture, structure, functions, components, and models of the Internet and other computer networks. Principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination.	Prerequisites: None.		Occ	L+L 4.0 6.0 6.0
CNT150AB	Switching, Routing, and Wireless Essentials		Focus on configuring switches and routers for use in small and medium size networks. Including Virtual Local Area Networks (VLANs),	Prerequisites: A grade of C or better in CNT140AB or permission of Instructor.		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			VLAN trunking, Inter-VLAN routing, Spanning Tree Protocol (STP), EtherChannel, Dynamic Host Configuration Protocol (DHCP), First Hop Redundancy, Local area Network (LAN) and Switch security, and Static routing. Knowledge and skills needed to implement a Wireless Local Area Network (WLAN) is also covered. Preparation for Cisco certification examination.				
CNT160AB	Enterprise Networking, Security, and Automation		Focus on the configuration of routers and switches within small and medium size networks for advanced functionality including Open Shortest Path First (OSPF), Network security, Access Control Lists (ACLs), Network Address Translation (NAT), Wide Area Network (WAN) concepts, Virtual Private Networks (VPNs), Quality of Service (QOS), network management, design, troubleshooting, virtualization, and automation. Preparation for Cisco certification examination.	Prerequisites: A grade of C or better in CNT150AB or permission of Instructor.		Occ	L+L 4.0 6.0 6.0
CNT168	CCNA Discovery - Designing and Supporting Computer Networks		Networking design and customer support including gathering requirements, designing basic networks, establishing proof- of- concept, and performing project management tasks. Lifecycle services, including upgrades, competitive analyses, and system integration, in the context of pre-sale support	Prerequisites: A grade of C or better in CNT158.		Occ	L+L 4.0 6.0 6.0
CNT171	CCNA Exam Prep		Preparation for renewal of CCNA certification by	Prerequisites: A grade of C		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			reviewing the Open Systems Interconnection (OSI) model and industry standards including network topologies, IP addressing, subnet masks, access control list, basic network design and cable installation. Practice the skills to configure, customize, maintain and troubleshoot Cisco routers and switches for Local Areas Networks (LANs) and Wide Area Networks (WANs) using Cisco IOS command set. Review any new material introduced since the last CCNA exam version.	or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor.			
CNT202	Cisco Secure Firewall Appliance Configuration		Applications of Cisco Networking technologies in designing and implementing security solutions to reduce risk of revenue loss and vulnerability. Hands-on experience and skills in security policy design and management, security technologies, products and solutions, secure firewall design, installation, configuration and maintenance, Authentication, Authorization, and Accounting (AAA), Failover, and Virtual Private Network (VPN) implementation using firewalls.	Prerequisites: A grade of C or better in CNT160AB or permission of Instructor.		Occ	L+L 4.0 5.0 5.0
CNT203	CCNA Cybersecurity Operations		Uses virtual environments to simulate real-world cybersecurity threat scenarios and create opportunities for practice with ethical hacking, security monitoring, analysis and resolution. Introduces current technical concepts, such as classification of network attacks, monitoring,	Prerequisites: A grade of C or better in CNT150AB or permission of Instructor.	CNT203 is designed to help students prepare for the Cisco Certified Network Associate (CCNA) Cybersecurity Operations	Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			analysis of network intrusion data, cryptography, prevention and mitigation of network attacks and application of incident response models to manage network security incidents.		Certification examination		
CNT205	Cisco Certified Network Associate Security		Associate-level knowledge and skills required to secure Cisco networks. Development of a security infrastructure, identification of threats and vulnerabilities to networks. Mitigation of security threats. Core security technologies. Installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure.	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor.		Occ	L+L 4.0 6.0 6.0
CNT206	Cisco Certified Network Associate Wireless		Associate-level knowledge and skills required in Cisco wireless networks. Includes comprehensive hands-on labs to design, plan, implement, operate, secure, and troubleshoot wireless networks.	Prerequisites: A grade of C or better in CNT160AB or permission of Instructor.	Prepares students to earn Cisco Certified Network Associate Wireless (CCNA Wireless) designation by taking the Implementing Cisco Unified Wireless Networks Essentials (IUNWE) exam.	Occ	L+L 4.0 6.0 6.0
CNT240	Cisco Certified Network Professional: Enterprise Core		Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-	Prerequisites: A grade of C or better in CNT160AB, or Cisco	Preparation for Cisco Certified Network Professiona	Occ	L+L 8.0 12.0 12.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications.	Certified Network Associate (CCNA) industry certification, or permission of Instructor.	I (CCNP) ENCOR exam.		
CNT240AA	Cisco Certified Network Professional: Enterprise Core I		Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications.	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.	Preparation for Cisco Certified Network Professional I (CCNP) ENCOR exam.	Occ	L+L 4.0 6.0 6.0
CNT240AB	Cisco Certified Network Professional: Enterprise Core II		Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and	Prerequisites: A grade of C or better in CNT240AA.	Preparation for Cisco Certified Network Professional I (CCNP) ENCOR exam.	Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications.				
CNT250	Cisco Certified Network Professional: Enterprise Advanced Routing and Services		Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications.	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.		Occ	L+L 8.0 12.0 12.0
CNT250AA	Cisco Certified Network Professional: Enterprise Advanced Routing and Services I		Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications.				
CNT250AB	Cisco Certified Network Professional: Enterprise Advanced Routing and Services II		Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications.	Prerequisites: A grade of C or better in CNT250AA.		Occ	L+L 4.0 6.0 6.0
COM080	Conversation Circles		Practice in conversing in English for non-native speakers. Emphasis in developing conversational techniques to facilitate building and maintaining relationships.	Prerequisites: None.	COM080 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
COM095	Basic Oral Communication Skills		Listening, speaking, and related academic performance skills,	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			including note taking. Emphasis on activities designed to improve and synthesize these skills				
COM100	Introduction to Human Communication		Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: COM 1100	Acad	LEC 3.0 3.0 3.0
COM100AA	Introduction to Human Communication Part I		Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social-Behavioral Sciences - [SB] in combination with: COM100AB and COM100AC	Acad	LEC 1.0 1.0 1.0
COM100AB	Introduction to Human Communication Part II		Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social-Behavioral Sciences - [SB] in combination with: COM100AA and COM100AC	Acad	LEC 1.0 1.0 1.0
COM100AC	Introduction to Human Communication Part III		Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social-Behavioral	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Sciences - [SB] in combination with: COM100AA and COM100AB		
COM101	Interpersonal Communication in the Workplace		Elements and functions of communication; perception of self and others; verbal and nonverbal communication; listening skills; effective verbal responses; communicating ideas and feelings; role of communication in relationships with others.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
COM102	Group Discussion in the Workplace		Concept of a decision-making group; role requirements in group discussion; characteristics and responsibilities of small-group leaders; tools for problem solving in a group; presenting proposals to management.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
COM105	Relational Communication/ Senior Adults		Communication skills as they apply to personal relationships of older adults. Student's assessment of their individual communication skills in relations with family members, social and business acquaintances, and friends	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
COM110	Interpersonal Communication		Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB] Arizona Shared Unique Number	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					SUN#: COM 1110		
COM110AA	Interpersonal Communication Part I		Theory and practice of communication skills which affect day-to- day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB] in combination with: COM110AB and COM110AC	Acad	LEC 1.0 1.0 1.0
COM110AB	Interpersonal Communication Part II		Theory and practice of communication skills which affect day-to- day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB] in combination with: COM110AA and COM110AC	Acad	LEC 1.0 1.0 1.0
COM110AC	Interpersonal Communication Part III		Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB] in combination with: COM110AA and COM110AB	Acad	LEC 1.0 1.0 1.0
COM120	Pronunciation of American Speech		Analysis of American speech production problems due to accents produced by another language, correction of misarticulated American speech sounds, critical listening to sound production, understanding American English speech patterns, practicing American	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			idioms and expressions, and preparing and delivering group and individual speech presentations				
COM125	Presentational Speaking		Techniques for developing oral presentations which include visual media. Principles of verbal message development and related visual design stressed. Techniques of managing the presentational environment including question and answer periods and the operation of common equipment	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
COM145	Digital Storybook	ART145 STO145	Enables students to find and develop a narrative representing an aspect of their personal histories. Use of digital technology to produce and archive a storybook	Prerequisites: None.		Acad	L+L 1.0 2.0 2.0
COM150	Digital Storytelling	ART150 STO150	Enables students to find and develop their personal stories. Emphasis on the use of digital technology to create, edit, produce and archive a digital story	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0
COM163	Intercultural Communication in Everyday Life		Provides knowledge to promote greater understanding and application of intercultural communication in social and organizational interactions. For advanced non-native English speakers.	Prerequisites: Appropriate English placement test score at the ENG101 or ENG107 level or a grade of C or better in ENG091 or ESL097 or permission of Instructor.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
COM177	Experiential Group Activities Facilitation		Communication skills, tools, and strategies	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			used to lead experiential learning activities. Designed to enhance the student's ability to facilitate experiential group learning activities.				
COM181	Conflict Mediation		Develop communication skills necessary to conduct mediation in formal and informal settings. Applies principles and theories of message production and responding, listening, questioning, source and receiver factors, and emotion to conflict management communication. Emphasis on respecting diversity and empowering joint problem solving throughout	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
COM207	Introduction to Communication Inquiry		Overview of theory and methodological practice in communication with particular attention to scholarly writing skills. Emphasis on development of critical thinking skills through active participation in the research process.	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent and COM100 or equivalent or permission of Instructor.	COM207 is recommend ed for the communicat ion major.	Acad	LEC 3.0 3.0 3.0
COM215	Listening		Emphasis on diagnosis of individual listening, corrective procedures, and reinforcement of improved habits through normal and speeded listening drills. Includes everyday communication experiences	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
COM221	Oral Fluency in American Speech		Designed for English Language Learner (ELL) students to develop greater oral fluency in spontaneous speaking contexts and presentational speaking. Emphasis on development of speech, language, and vocal clarity; basic skills in presentational speaking; and use of English to	Prerequisites: A grade of C or better in COM120 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			interact spontaneously with others.				
COM222	Argumentation		Discussion and practice of the use of evidence, applied reasoning, recognition of fallacies, selection of arguments, and methods of analyzing issues	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
COM225	Public Speaking		Designed to enhance the student's ability to present public speeches confidently and competently. Also designed to improve information literacy and critical thinking skills	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
COM230	Small Group Communication		Principles and processes of small groups and development of skills for participation and leadership in small group settings. Practice in problem solving, decision making, and information sharing.	Prerequisites: None.	General Education Designation : Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: COM2271	Acad	LEC 3.0 3.0 3.0
COM241	Oral Interpretation of Literature	THP241	The study, analysis, and preparation for performance of prose, poetry, and dramatic literature. Preparation of material for public audiences.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
COM250	Introduction to Organizational Communication		Introduction to the study of communication in organizations including identification of variables, roles and patterns influencing communication in organizations	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
COM251	Interviewing		Principles and techniques of interviewing, including practice through real and simulated interviews in informational, persuasive, and employee-related situations	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
COM259	Communication in Business and Professions		Interpersonal, organizational, intercultural, group, and public communication in business and professional organizations. Emphasis on oral communication and the effective use of technology and new media.	Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.		Acad	LEC 3.0 3.0 3.0
COM263	Elements of Intercultural Communication		Diverse cultural contexts are explored through basic concepts, principles, and theories of intercultural communication. Discovering effective interaction and appropriate communication in a global community is emphasized.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
COM270	Health Communication		Theory and practice of interpersonal, intercultural, public, and team communication skills in a healthcare setting.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
COM271	Voice and Diction	THP271	Exercises and techniques to free the voice and improve projection, resonance, and articulation. Covers international phonetic alphabet and standard stage speech	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
COM275	Nonverbal Communication		Effects of space, time, body movements,	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			environment, objects, and voice quality on human communication and interaction				
COM277	Group Facilitation Theory and Practice		Theory and practice of group facilitation skills. Emphasis on leading organizational groups in problem solving and decision-making.	Prerequisites: Associates degree or equivalent or 3 to 5 years work experience or permission of Instructor.		Acad	LEC 2.0 2.0 2.0
COM281	Communication Activities		Designed to provide students with competence and confidence in a variety of speech situations beyond the classroom setting. May include presentations at speech competitions or at community organizations.	Prerequisites: None.	COM281 may be repeated for a total of six (6) credit hours.	Acad	L+L 1.0 3.0 3.0
COM281AA	Communication Activities		Designed to provide students with competence and confidence in a variety of speech situations beyond the classroom setting. May include presentations at speech competitions or at community organizations.	Prerequisites: None.	COM281AA may be repeated for a total of six (6) credit hours.	Acad	L+L 2.0 4.0 4.0
COM281AB	Communication Activities		Designed to provide students with competence and confidence in a variety of speech situations beyond the classroom setting. May include presentations at speech competitions or at community organizations.	Prerequisites: None.	COM281AB may be repeated for a total of six (6) credit hours.	Acad	L+L 3.0 5.0 5.0
COM282AA	Service-Learning Experience in Communication		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	COM282AA may be repeated for a total of six (6) credit hours. Standard grading available according	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					to procedures outlined in catalog.		
COM282AB	Service-Learning Experience in Communication		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	COM282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
COM282AC	Service-Learning Experience in Communication		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	COM282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
COM296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				at least one class which is related to student's major or career interest or with permission of the Instructor.			
COM296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
COM296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
COM296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
COM298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
COM298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
COM298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
CON100	Introduction to Construction		Introduces students to all aspects of the construction industry such as how projects are delivered, reviewing the procurement process and how they are estimated, scheduled, and contracted. Introduces students to the individual roles that constructors fill in the delivery of a construction project.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CON101	Construction and Culture		The cultural context of construction, emphasizing the evolution and expansion of constructed environments as expressions of ethical and historical value systems.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Occ	LEC 3.0 3.0 3.0
CON103	Foundation of Construction Safety		Occupational Safety and Health Act (OSHA). Common causes for accidents and fatalities in construction. Abatement techniques for construction-specific hazards. Use of personal protection and lifesaving equipment. Specific types of health hazards related to the construction industry. Proper methods for handling hazardous materials.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
CON104	Hand and Power Tools, Equipment, and Workspace		Overview of the selection, use, maintenance and safety	Prerequisites: None.		Occ	L+L 1.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			procedures for common hand tools, power tools and equipment used in the construction industry. Overview of the maintenance of workspace according to professional standards.				
CON105	Construction Calculations		Introduction to basic calculation skills in the construction environment including the four primary operations. United States standard and metric units of measure, geometric figures, and area and volume calculations for two and three-dimensional objects.	Prerequisites: None.		Occ	L+L 1.5 1.5 1.5
CON106	Foundations of Concrete		Examines the effects of concrete-making materials (aggregates, cements, admixtures, etc.) on the properties of fresh and hardened concrete. Concrete mixture proportioning is discussed along with the calculations and statistical analysis of strength testing.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0
CON107	Construction Drawings Introduction		Provides students with the information and skills needed to read and understand construction drawings.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
CON110	Carpentry: Floor Systems		Emphasis on the layout and construction procedures for floor systems, including: interpretation of construction drawings and specifications; selection of appropriate types of floor system components; and application of floor system materials. Includes estimation of the amount of materials needed for a floor assembly and some common alternative floor systems.	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CON111	Carpentry: Wall Systems		Examines the layout and construction procedures for wall systems, including: interpretation of construction drawings and specifications; selection of appropriate types of wall system components; and application of wall system materials. Emphasis of the estimation of the amount of materials needed for a wall assembly and some common alternative wall systems.	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0
CON112	Carpentry Ceiling Joist and Roof Framing		Covers the layout and construction procedures for roof systems, including interpretation of construction drawings and specifications. Provides an overview of ceiling and roof construction methods, the different types of roofs used in residential construction, materials, estimation of materials, and the use of trusses in basic roof framing.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0
CON117	Interpersonal Skills, Issues and Resolutions in Construction		Information about communication and human relations skills, the expectations of today's diverse workforce, and relationships with stakeholders. Leadership style, interview techniques, and professional development plans. Management skills in problem solving and negotiating.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CON124	Plumbing: Pipes and Fittings		Introduces the various types of plumbing materials, pipe schedules and material properties, and applications of piping. Trainees will learn how to determine the appropriate types of	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			fittings, valves, hangers, and supports needed for piping jobs. Trainees will learn to properly measure, cut, prep, and join piping.				
CON125	Plumbing: Fixtures		Introduces commonly used fixtures in plumbing systems. Select and operate each type of fixture for a variety of installations. Provides an overview of plumbing system installation, maintenance and water heating systems.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
CON126	Plumbing: Drain, Waste, and Vent		Examine the drainage, waste movement and ventilation for construction application. Provides instruction in locating, installing, connecting, and testing a complete drain, waste, and vent (DWV) system.	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0
CON127	Plumbing: Water Distribution Systems		Discuss the processes through which potable water is distributed. Examine the identification of the components and functions of a water distribution system and explains the relationships among the components. Includes installation and testing of water distribution systems.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
CON130	Computer Aided Design and Drafting		Fundamental drafting and documentation topics and techniques related to construction, using both board and computer as tools. Concentration on various methods of two-dimensional and three-dimensional drawing, sketching, scaling, and dimensioning with computer and board.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
CON131	Electrical Systems	HVA131	Electricity related to residential and light commercial applications, to include common	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			electrical components, AC and DC circuits, and electrical safety. Provides an introduction to reading, interpreting, and creating wiring diagrams and the application of electrical power. Operation and use of specific meters, tools, and an introduction to National Electrical Code (NEC).				
CON132	Distribution Panels, Wiring, and Circuit Protection in Electrical Systems		Discuss construction drawings and code related to conductors and cables (types, ratings), residential and commercial applications, wire sizes, utilities, meters, disconnects, breakers, grounding and bonding, rough-in wiring and circuit safety protection.	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0
CON133	Conduit, Raceways, and Termination in Electrical Systems		Termination and implementation of electricity in a facility. Considers topics related to box capacities, raceways, conduit sizes, termination practices, wire trays, and finish wiring.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0
CON138	Introduction to Project Management and Resource Control	IND138	Technical and management skills such as preconstruction planning, cost and risk control and policy development. Criteria for project layout purchasing, subcontractor management, project layout. Preparation process for project start up, close out and alternate project delivery methods. Major factors which affect production control and production control standards. Project manager's role.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
CON181	Cost Estimating		Determining quantities of material, equipment, and labor for a construction	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			project. Includes procedures used to apply unit costs to these items in a minimum of time. Occupational Safety and Health Administration Safety Standards and their impact on construction cost.				
CON213	Carpentry: Steel Framing		The layout and construction procedures for steel framing, including: interpretation of construction drawings and specifications; selection of appropriate types of steel framing components; and application of materials. Includes estimation of the amount of materials needed for a steel assembly.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CON214	Carpentry: Roof Systems and Building Envelopes		Safety, codes, and construction procedures for roof systems and building envelopes, including interpretation of construction drawings and specifications. Students construct conventional roof structures and ceilings, and install exterior finish materials.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CON215	Carpentry: Interior Finishes		The layout and construction procedures for interior finishes such as: drywall, trim, doors, cabinetry and stairs, including interpretation of construction drawings and specifications. Provides an overview of construction methods, the different types of materials, and estimation of materials.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0
CON216	Carpentry: Concrete Forms		Safety, codes, and construction procedures for layout and construction of concrete footers and post-tensioned slabs, wall forms, and columns.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes interpretation of construction drawings and estimation of materials.				
CON220	Statics Application for Construction		Emphasis on response of bodies to the action of forces. Elementary analytical and practical approach to the principles and physical concepts of statics. Focus on mastery of basic principles of trigonometry, application of vectors and forces, and moments, with analysis of basic structures and structural components, and statics application to construction.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CON221	Applied Statics		Emphasis on response of bodies to the action of forces. Elementary analytical and practical approach to the principles and physical concepts of statics, focuses on mastery of basic principles of trigonometry, application of vectors and forces, and moments, with analysis of basic structures and structural components, trusses, shear and moment diagrams, centroids, and moments of inertia.	Prerequisites: A grade of C or better in MAT15+, (MAT182 OR MAT187) and PHY111.		Occ	LEC 3.0 3.0 3.0
CON223	Strength of Materials		Strength and application of materials of construction, including mechanics of beams, shafts, and bolted and welded connections under various loading conditions. Construction behavior of various materials externally and internally.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CON224	Plumbing: Pipe Systems and Controls		Examines applied calculations to determine size, types and service of pipe systems. Discusses the application of drawings,	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			codes, and specifications for assembly and installation of gas, air, and water systems.				
CON225	Plumbing: Water Disposal Systems		Examines water disposal and drainage systems, to include the types, components, functions, codes, safety, design, installation and repair.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0
CON226	Plumbing: Fixtures and Appliances		Examines the safety, codes, installation, maintenance, and repair of appliances, fixtures, and gas piping.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CON227	Plumbing: Water Resource Solutions		Introduces water supply disinfection, filtration systems, and sustainable water practices.	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0
CON234	Electric Power Distribution		Theory and applications of distribution of power from utilities to residential and commercial sites, including transformers and commercial electrical distribution equipment and services. Includes safety, codes, and interpretation of construction drawings and specifications.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CON235	Motors: Theory and Application		Describes motor and motor controls in electricity. Explains how to select and install relays and troubleshoot control circuits. Distinctions between AC and DC motors, motor speed control, and design and operation characteristics, connections and terminal markings.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0
CON236	Industrial Wiring Applications		A broad variety of electrical wiring applications, including healthcare facility, heating, ventilation and air conditioning (HVAC), standby, emergency, and fire alarm systems.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CON241	Surveying I		Fundamental surveying principles including theory and field work using the level and transit, horizontal measurement by tape or stadia, benchmark and profile leveling traverse surveys and computations, establishment of line and grade. Designed to develop semi-professional personnel working for private or government engineering agencies.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
CON243	Heavy Construction Equipment, Methods, and Materials		Fundamentals of machine selection and production estimating, using computer-generated data to develop programs that speed the decision process or allow easy analysis of multiple options used in the heavy construction industry. Applications of engineering principles in analyzing economical approaches for heavy construction. Covers fleet operation, methods, maintenance, and programs for construction of dams, tunnels, roads, and excavations of buildings.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CON244	Working Drawing Analysis: Blueprint Reading		Detailed analysis and interpretation of construction drawings (blueprint reading); interpretation of symbols, annotations, conventions, terms of trade; and understanding of drawing, dimensioning, plan organization, and specifications.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CON251	Microcomputers for Constructors		Effective application of computers in support of construction management, administration, and	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technical aspects of the construction industry. Uses of the computer as a problem-solving tool, including multimedia software, information management, and spreadsheet applications in construction.				
CON252	Building Construction Methods, Materials, and Equipment		Comprehensive study of construction methods, materials, codes, and equipment used in building construction.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CON262	Introduction International Residential Code (IRC)		Covers International Residential Code for various trades, including building, mechanical, plumbing and electric, for one and two family residential construction. Preparation for voluntary certification (IRC building inspection).	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CON263	Building Codes		Designed specifically to acquaint students with safety principles of building construction under the Uniform Building Code, including structural requirements for wood, masonry and concrete, fire resistance of building construction, fire resistant materials, and ratings and occupancy requirements.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CON271	Construction Safety		Overview of safety methods and procedures for accident prevention and equipment used by construction workers to maximize field safety during various phases of a construction project, including requirements and regulations for construction safety set by Occupational Safety and Health Administration (OSHA) standards along with biological aspects of construction safety.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CON273	Electrical Construction Fundamentals		General knowledge of electrical work related to construction management, administration, and technical aspects of the construction industry. Covers circuits and machinery, power transmission, and electrical distribution with emphasis on secondary distribution systems as well as measurement and instrumentation, Ohm's Law, low voltage, high voltage, temporary power, generators, service, systems, circuits, motors, transformers, electrical installations, codes, cogeneration, energy conservation, estimating, safety and related blueprint readings.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CON290AA	Construction Internship	CNS290A A	Construction internship office/field experience with private/public agencies or citizen volunteer groups. Eighty (80) hours of designated work experience.	Prerequisites: Permission of Department or Division.	CON/CNS290AA may be repeated for a total of three (3) credits. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 1.0 6.0 0.0
CON290AB	Construction Internship	CNS290A B	Construction internship office/field experience with private/public agencies or citizen volunteer groups. One hundred and sixty (160) hours of designated work experience.	Prerequisites: Permission of Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 2.0 12.0 0.0
CON290AC	Construction Internship	CNS290A C	Construction internship office/field experience with private/public agencies or citizen volunteer groups. Two hundred and forty (240)	Prerequisites: Permission of Department or Division.	Standard grading available according to procedures	Occ	LAB 3.0 18.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			hours of designated work.		outlined in college catalog.		
CON298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
CON298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
CON298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
COS104	Hair Essentials I		Introduction to the basic theory and procedures in cosmetology hair essentials.	Prerequisites: Program Admission.		CLK	200
COS106	Hair Essentials II		Hair-shaping techniques and chemical application procedures in cosmetology hair essentials.	Prerequisites: COS104 or Program Manager's permission.		CLK	200
COS114	Student Salon 1		Continuation of cosmetology theory and practical concepts at an intermediate level. Theory will be focusing on professional development, salon ecology, anatomy and hair decisions. Practical skills will be demonstrated daily on clients and manikins. Rubrics on procedures are done monthly. One day a month on Arizona state board licensure focus.	Prerequisites: A grade of C or better in COS112, or COS106, or permission of Program Manager.		CLK	200
COS116	Student Salon 2		Apply concepts learned in the classroom and the student salon to develop real life scenarios while servicing a client and/or becoming a future business owner in the beauty industry.	Prerequisites: COS114 or Program Manager's permission.		CLK	200
COS118	Hair Stylist State Licensure Focus		This course is designed to prepare students for the written and practical examinations for the Arizona State Board of Cosmetology HAIRSTYLIST licensure only.	Prerequisites: COS116 or Program Manager's permission.		CLK	200
COS119	Nail Essentials		Introduction to nail services in the beauty industry.	Prerequisites: COS116 or Program		CLK	200

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Manager's permission.			
COS212	Skin Essentials		Introduction to skin services in the beauty industry.	Prerequisites: COS119 or Program Manager's permission.		CLK	200
COS214	Student Salon 3		Prepares cosmetology students to be industry ready and prepared to perform services in their chosen field of expertise after licensure with the Arizona State Board of Cosmetology.	Prerequisites: COS212 or Program Manager's permission.		CLK	200
COS218	Cosmetology State Licensure Focus		This course is designed to prepare cosmetology students for the written and practical examinations for Arizona State Board of Cosmetology licensure.	Prerequisites: COS214 or Program Manager's permission.		CLK	100
COS250	Instructor in Training Orientation		Students will be introduced to the Arizona State Board of Cosmetology instructor safety and sanitation, rules and regulations. This class is to prepare a student to become an instructor in their licensed field.	Prerequisites: 1. Must hold current Arizona State Board of Cosmetology License in good standing, in the appropriate field. 2. Must have one year of industry work experience.		CLK	80
COS251	Instructor in Training I		Students will train to become an instructor in their certified field of cosmetology or aesthetics. Students will learn the fundamentals of becoming an instructor by completing assigned work, shadowing instructors, creating lesson plans, coaching students and working hands-on with students and clients.	Prerequisites: COS250.		CLK	135
COS252	Instructor in Training II		Students will continue to train to become an instructor in their certified field of	Prerequisites: COS251.		CLK	135

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			cosmetology or aesthetics. Student will learn the fundamentals of becoming an instructor by completing assigned work, shadowing instructors, creating lesson plans, coaching students and working hands-on with students and clients. State board preparation for licensing.				
COV110	The Seven Habits of Highly Effective People		Development of interpersonal habits that are used by successful people in their personal and professional lives. Seven Habits of Highly Effective People. Video-based lecture course.	Prerequisites: None.	Under the terms and conditions specified in the licensing agreement with the Franklin Covey Company and the the Maricopa Community College District, only those persons licensed are qualified to teach Covey prefix courses. These facilitators must be identified within the terms of the licensing agreement.	Occ	LEC 2.0 2.0 2.0
COV112	Great Leaders, Great Teams, Great Results		Overview of foundational characteristics of great teams and organizations. Process oriented approach to creating strategies for inspiring trust and building credibility, defining a purpose, aligning systems of	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			success, and unleashing talents of teams.				
CPD101	Personal Development		Designed to assist students in developing confidence in making personal, social, and educational decisions. Examination and assessment of individual needs, interests, abilities and values to develop and strengthen interpersonal communication, enhance transitional skills and identify realistic life planning goals	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD102AA	Assertiveness Training		Designed to help students, differentiate assertive, non-assertive and aggressive behavior, overcome blocks to acting assertively, establish boundaries, and develop effective verbal and nonverbal assertive behavior. Group discussion, role playing, and videotape feedback are used to enable students to express feelings, beliefs, and opinions in a direct appropriate manner	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD102AB	Career Exploration		Designed to assist students make informed career decisions. Focuses on current occupational trends and outlook. Explores career-related interests, values, needs, preferences, skills, and strengths with the use of various assessments. Aids in the development of individualized educational/career goals and action plan.	Prerequisites: None.	CPD102AB may be repeated for a total of six (6) credit hours.	Acad	LEC 2.0 2.0 2.0
CPD102AC	Creative Job Hunting		Assists students in gaining skills and confidence necessary to compete in the job market. Emphasis on job search techniques and	Prerequisites: None.	CPD102AC may be repeated for credit.	Acad	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			strategies, resume and cover letter writing, interviewing skills and professional etiquette.				
CPD102AD	Growth and Transformation Strategies		Designed to help students adopt a growth mindset within a holistic framework in order to transform patterns that prevent them from achieving their goals.	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD102AF	Human Sexuality		Enables students to view gender and sexuality as dimensions of personal identity, and explores intersectionality between multiple identities. Examination of differences between identify expression, behavior, and biological influences, tracing social evolution from masculine-feminine dichotomy to non-binary perspectives.	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD102AH	Stress Management		Reviews the sources of stress, the physiological effects and the psychological impact of stress on the individual. Provides strategies to manage and reduce stress. Helps students develop and understand behaviors to create a healthy balance in their lives by studying the biological, psychological, physiological, and social aspects of stress and wellness.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CPD102AJ	Personal Spiritual Development		Designed to encourage exploration of human spirituality. Focus on personal values and individual belief systems. Emphasis on developing an integrated concept of spirituality and applying it to one's own life	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD102AN	Anger Management		Provides an understanding of the emotion of anger, explores the types, origins and typical	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			reactions to anger. Covers stress and the need for stress management in relation to anger. Examines personal anger patterns and feelings, and the use of effective interpersonal communications in effective anger management				
CPD102AR	Relaxation Training		Emphasis on specific relaxation techniques to alleviate dysfunctional tension. Use of progressive relaxation methods to reduce stress. Discussion of other modalities of relaxation	Prerequisites: Permission of Instructor.		Acad	LEC 1.0 1.0 1.0
CPD102AS	Conflict Resolution		Developing new skills for dealing effectively with everyday conflict and improving quality of one's own life. Opportunity to discuss issues and seek cooperative resolutions	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD102AT	Building Self-Esteem		Practice in specific methods for building and keeping self-esteem. Personal assessment of attitudes, values, support systems, and goals	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD102AU	Introduction to Meditation: Vipassana Practice		Introduction to the practice of Vipassana (Insight) Meditation. Focus on the history, benefits and methodology of Vipassana meditation. Special emphasis on establishing a formal and informal meditation practice	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CPD103BA	Women In Transition		Designed to assist and support women who are experiencing life transitions. Emphasis on assessing self-potential, increasing self-confidence, managing life change, and exploring education/career/life	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			options in terms of the realities of roles for women today.				
CPD103BB	Men in Transition		Designed to assist men who are experiencing life transitions. Emphasis on assessing potential, increasing self-confidence, managing change, exploring educational/career options, and exploring mens' roles in a changing society	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD103BC	African American Cultural Pride and Awareness		Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD103BD	Latino/Hispanic American Pride and Awareness		Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD103BE	Native American Cultural Pride and Awareness		Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD103BG	Asian American Cultural Pride and Awareness		Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD103BH	Male-Female Communication		Designed to provide students with a better understanding of male-female characteristics and how that along with a renewed emphasis on basic communication skills will improve communication between the sexes	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD103BJ	Dynamic Parenting		Designed to provide students with an understanding of parenting dynamics and	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			effective communication between parents and children. Emphasis on building self-esteem, developing coping skills, behavior modification, and other techniques for improving parenting and communication in a variety of circumstances				
CPD103BL	Dynamics of Leadership		Designed to provide strategies that may be used when assuming leadership roles. Focus on improving self-confidence through the development of appropriate behaviors, problem-solving skills, and techniques of leadership.	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD103BV	Personal Development for Military Veterans		Assist military veterans in examining role changes, values, strengths, resources, career, readjustment and lifestyle choices. Strategies for coping with life changes, stress, and other personal development needs in transitioning into civilian life	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
CPD104	Career and Personal Development		An overview of the holistic process of career/life planning through self-awareness and understanding of the world of work. Exploration and application of behavioral, social, and cultural factors leading to college, career, and personal success with emphasis on assessment, applied behavior management, motivation, self-care, and career development.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CPD108	Personal Money Management for College Students		Designed to assist students in examining values related to spending, borrowing and saving money. Identify financial priorities and	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			responsibilities associated with debt. Develop and follow a personal budget plan and learn strategies for maintaining a financially balanced personal life				
CPD115	Creating College Success	AAA115	Strategies to create success in college. Methods for selecting and developing effective academic strategies, increasing self-awareness and developing self-management strategies. Elements of college resources and relationships with others explored in support of students' educational experience	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CPD125	Employee Development: Problem Solving/Decision Making		Development of decision-making skills as well as techniques for problem solving. Focus on values and value conflicts as related to decision-making. Also includes establishing short and long-term goals for personal and career development.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CPD150	Strategies for College Success	AAA150	Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CPD150AA	College Orientation and Personal Growth		Emphasis on increasing student success through college orientation, identification of learning style and the use of time management, goal-setting, and interpersonal communication strategies	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CPD150AB	Study Skills Development		Emphasis on increasing student success through the use of study strategies including materials organization, note-taking, reading,	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			test-taking, memory, and critical and creative thinking				
CPD150AC	Educational and Career Planning	AAA150A C	Emphasis on increasing student success through educational and career planning.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
CPD160	Introduction to Multiculturalism		Examination of the multiple cultures and subcultures within the contemporary United States. Personal exploration of awareness and appreciation of multiculturalism. Activities for experiencing diverse cultural perspectives. Critical thinking skills for recognizing, analyzing, and mediating cultural and psychological factors impacting conflict and accord between diverse cultures through written and oral discourse.	Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
CPD180	Human Resilience: Cognitive, Emotional, and Behavioral Applications		Exploration of human resilience and well-being within the context of personal, academic, and career life. Focus on enhancing quality of life, and improving academic performance and career success through awareness of behavior, cognition, and emotion as well as the practice of self-regulation. Topics include mindfulness, positive psychology, motivation, effective thinking, applied neuroscience, mental and emotional health and self-care.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social-Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
CPD195AA	Special Topics: Counseling and Personal Development		Introduction to current topics and contemporary issues related to promoting and enhancing personal development	Prerequisites: None.		Acad	LEC 0.5 0.5 0.5
CPD195AB	Special Topics: Counseling and		Introduction to current topics and contemporary issues related to	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Personal Development		promoting personal development. Focuses on a variety of techniques and strategies to improve personal and interpersonal effectiveness				
CPD250	Peer Mentor Training		Development and application of beginning skills and knowledge required to establish and maintain effective peer helping relationships in a college setting. Focus on the role, function, and responsibilities of the peer mentor; verbal and nonverbal communication skills; problem solving; and strategies and resources for first-year student success. Includes on-campus service-learning component.	Prerequisites: Completion of 24 credit hours (100-level or above) with a B grade point average or better and permission of Instructor.		Acad	L+L 3.0 4.0 4.0
CPD282AA	Volunteerism for Counseling and Personal Development: A Service Learning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CPD282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
CPD282AB	Volunteerism for Counseling and Personal Development: A Service Learning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CPD282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CPD282AC	Volunteerism for Counseling and Personal Development: A Service Learning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CPD282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
CPD298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
CPD298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CPD298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
CPT110	Carpentry: Floor Systems		Course covers the layout and construction procedures for floor systems, including: interpretation of construction drawings and specifications; selection of appropriate types of floor system components; and application of floor system materials. Course also includes estimation of the amount of materials needed for a floor assembly and some common alternative floor systems.	Prerequisites: None.		CLK	81
CPT111	Carpentry: Wall Systems		Course covers the layout and construction procedures for wall systems, including: interpretation of construction drawings and specifications; selection of appropriate types of wall system components; and application of wall system materials. Course also includes estimation of the amount of materials needed for a wall assembly and some	Prerequisites: None.		CLK	81

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			common alternative wall systems.				
CPT112	Carpentry Ceiling Joist and Roof Framing		Covers the layout and construction procedures for roof systems, including interpretation of construction drawings and specifications. Provides an overview of ceiling and roof construction methods, the different types of roofs used in residential construction, materials, estimation of materials, and the use of trusses in basic roof framing.	Prerequisites: None.		CLK	102
CPT213	Carpentry: Steel Framing		Course covers the layout and construction procedures for steel framing, including: interpretation of construction drawings and specifications; selection of appropriate types of steel framing components; and application of materials. Course also includes estimation of the amount of materials needed for a steel assembly.	Prerequisites: None.		CLK	41
CPT214	Roof Systems and Building Envelopes		Course covers the safety, codes, and construction procedures for roof systems and building envelopes, including interpretation of construction drawings and specifications. Students construct conventional roof structures and ceilings, and install exterior finish materials.	Prerequisites: None.		CLK	81
CPT215	Carpentry: Interior Finishes		Course covers the layout and construction procedures for interior finishes such as: drywall, trim, doors, cabinetry and stairs, including interpretation of construction drawings and specifications. Provides an overview of construction methods,	Prerequisites: None.		CLK	102

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the different types of materials, and estimation of materials.				
CPT216	Carpentry: Concrete Forms		Course covers the safety, codes, and construction procedures for layout and construction of concrete footers and post-tensioned slabs, wall forms, and columns. Includes interpretation of construction drawings and estimation of materials.	Prerequisites: None.		CLK	81
CRA290	Introduction to Clinical Research Associate		Introduction to the Clinical Research Associate (CRA) profession as an advanced career path for clinical research coordinators. Topics include CRA role, career development, study development process, monitoring, training and oversight, and regulations. Effective analysis, synthesis, and evaluation of topics through written discourse.	Prerequisites: Bachelor or higher degree in life/health sciences and permission of Program Director.		Occ	LEC 3.0 3.0 3.0
CRA291	Monitoring		Basic monitoring skills and responsibilities required of the Clinical Research Associate (CRA). site selection and Initiation, routine monitoring and close-out visits; audit techniques and preparations; expectations and professionalism; monitoring plans, Standard Operating Procedure (SOP) adherence, training of sites, travel expectations and conduct; sponsor interactions (acting as a liaison); source document verification; review of patient charts; use of electronic systems; monitoring reports and letters;	Prerequisites: A grade of C or better in CRA290.		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			adverse event monitoring and reporting; recruitment and retention.				
CRA293	Clinical Study Development		Introduction to the Clinical Study Development Process and various roles of a Clinical Research Associate (CRA). Roles and responsibilities of in-house CRA versus Field CRA support, timelines of Clinical Study Development, overview of the ABC model, drug versus device study development and national and international considerations.	Prerequisites: A grade of C or better in CRA290.		Occ	LEC 3.0 3.0 3.0
CRA295	Ethics and Regulations		Overview of the regulations, guidelines and resources associated with the Clinical Research Associate (CRA) role. Monitoring responsibilities, Code of Federal Regulations, International Conference of Harmonisation (ICH) guidelines, European Directives, Pharmaceutical Research and Manufacturers of America (PhRMA) principles, Food and Drug Administration (FDA) Guidelines for the Monitoring of Clinical Investigations and sponsor responsibilities for conduct of clinical trials and approval.	Prerequisites: A grade of C or better in CRA290.		Occ	LEC 3.0 3.0 3.0
CRA297	Clinical Trial Material and Device Accountability		Overview of Clinical Trial Material (CTM) from development and manufacturing to accountability and destruction along with comparable device processes. Roles of a Clinical Research Associate (CRA) relative	Prerequisites: A grade of C or better in CRA290.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to Clinical Trial Materials/Devices. Investigational New Drug (IND) applications, good manufacturing practices, importing and exporting of CTMs/devices, packaging and stability, accountability records, destruction requirements and review of regulatory considerations.				
CRC101	Introduction to Clinical Research		Introduction to the clinical research process. History, development and basic study designs in varied health, biomedical and biotechnical settings. Clinical trial development phases and regulatory protection for human subjects. Roles and responsibilities of the clinical research team and research organization. Good Clinical Practice (GCP) and International Committee on Harmonization (ICH) guidelines. Functions, research terminology, and general research funding of the Institutional Review Board (IRB) and Ethics Review Committee.	Prerequisites: Admission into the Clinical Data Coordination program or the Clinical Research Coordination program or permission of Program Director.		Occ	LEC 4.0 4.0 4.0
CRC102	Clinical Research Regulations		Overview of legal and regulatory research compliance. Federal and international regulations, Good Clinical Practice (GCP) and International Council on Harmonization (ICH) guidelines. Roles, responsibilities and related regulations of Institutional Review Boards (IRB), Data Monitoring Boards and research organizations. Required forms, human subject protection, research integrity, ethical	Prerequisites: Admission into the Clinical Data Coordination program or the Clinical Research Coordination program or permission of Program Director.	None	Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			considerations, Health Insurance Portability and Accountability Act (HIPAA) and conflict of interest issues.				
CRC103	Research Design and Data Management		Major research design methodologies and data management. Interpretation of research design, organization of study charts and data, participant eligibility, and maintenance of screening/visit logs. Submission of adverse event forms. Overview of database structures, electronic data collection methods, and effective presentation of data in required reports. Tracking of investigational agents and preparation for audits and site visits by sponsors and/or regulators. Federal regulations governing clinical trials electronic data submissions and transmissions.	Prerequisites: Admission into the Clinical Data Coordination program or the Clinical Research Coordination program or permission of Program Director.	None	Occ	LEC 4.0 4.0 4.0
CRC104	Clinical Data Coordination Practicum I		Application of clinical data coordinator skills and functions in various clinical and research settings. Observation of approved investigational or research site activities and personnel as assigned or deemed appropriate by Supervisory Staff, applicable standard operating procedures and/ or Program Director. Forty (40) hours of supervised clinical data coordinator experience in a clinical research setting.	Prerequisites: Admission into the Clinical Data Coordination program or the Clinical Research Coordinator program or permission of Program Director.	CRC104 may be repeated for a total of three (3) credit hours.	Occ	LAB 1.0 3.0 0.0
CRC151	Introduction to Medical Devices in Clinical Evaluation		Introduction to the role of the Clinical Research Coordinator (CRC) in medical device research. Overview of medical	Prerequisites: Admission into the Clinical Research		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			device regulatory requirements, the role of the Institutional Review Board (IRB), and classification of medical devices including Humanitarian Device Exemptions. Special emphasis on conduct of an investigational study and roles of the investigator, CRC, and the IRB.	Coordination program or permission of Program Director.			
CRC152	Research Ethics		History of human experimentation and bioethics. Fundamentals of ethical principles including autonomy, beneficence, nonmaleficence and justice. Practical application of moral sensitivity, moral reasoning, moral commitment and perseverance, and moral implementation. Overview of ethical issues arising from biomedical research including informed consent, vulnerable populations, using children and animals for research, and placebos and sham surgery in research. Includes Institutional Review Board (IRB`s), conflict of interest, plagiarism and data fabrication.	Prerequisites: Admission into the Clinical Research Coordination program or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
CRC153	Institutional Review Board in Clinical Research		Examines the historical development, regulatory roles, responsibilities and functions of Institutional Review Board (IRB) membership and related stakeholder relationships. Comparisons of different IRB organizational and operational designs in relation to emerging technologies and implications for future research will be	Prerequisites: Admission into the Clinical Research Coordination program or permission of Program Director.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			reviewed. Special emphasis on developing an understanding of the complexity of IRB roles, the implementation of state, national and international regulations and guidelines, and potential conflicts associated with the conduct of human research. Includes IRB functions, related regulations, ethical issues, current and future operational trends.				
CRC160	Clinical Research Site Management		Clinical research site organization, operation and management. Office setup, study initiation process, site maintenance, essential documentation requirements and binders, site evaluation and site closure. Understanding Institutional Review Boards (IRB) timeliness for submission, approval and study maintenance. Budget and contract negotiation, and sponsor and regulatory audit components and preparation. Coordination with sponsors and related research entities; investigative staff training. Organization of process flow and effective interactions with IRB, Contract Research Organizations, sponsors, regulators, investigators, and community.	Prerequisites: Admission into the Clinical Research Coordination program or permission of Program Director.		Occ	LEC 4.0 4.0 4.0
CRC204	Clinical Research Coordination Practicum II		Application of clinical research coordinator skills and functions in various clinical research settings. Observation of approved investigational or research site activities and personnel as	Prerequisites: Admission into the Clinical Research Coordination program or permission of	CRC204 may be repeated for a total of six (6) credit hours.	Occ	LAB 2.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			assigned or deemed appropriate by Supervisory Staff, applicable standard operating procedures and or Program Director. Eighty (80) hours of clinical research coordinator experience in a clinical research setting.	Program Director.			
CRE101	College Critical Reading and Critical Thinking		Develop and apply critical thinking skills through critically reading varied and challenging materials. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks.	Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Acad	LEC 3.0 3.0 3.0
CRE101AT	College Critical Reading and Critical Thinking in Applied Technology		Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in applied technology. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks.	Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.	Course Attribute(s): Common Competency Course	Acad	LEC 3.0 3.0 3.0
CRE101BM	College Critical Reading and Critical Thinking in Business, Entrepreneurialism and Management		Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in business,	Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or	Course Attribute(s): Common Competency Course	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			entrepreneurialism and management. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks.	RDG100LL or RDG111 or RDG112 or RDG113]] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.			
CRE101BS	College Critical Reading and Critical Thinking in Behavioral Sciences and Human Services		Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in behavioral sciences and human services. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks.	Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.	Course Attribute(s): Common Competency Course	Acad	LEC 3.0 3.0 3.0
CRE101CS	College Critical Reading and Critical Thinking in Culture and Society		Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in culture and society. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks.	Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.	Course Attribute(s): Common Competency Course	Acad	LEC 3.0 3.0 3.0
CRE101CT	College Critical Reading and Critical Thinking in Computer Information Technology		Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in	Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or	Course Attribute(s): Common Competency Course	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			computer information technology. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks.	RDG100 or RDG100LL or RDG111 or RDG112 or RDG113]] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.			
CRE101ED	College Critical Reading and Critical Thinking in Education		Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in education. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks.	Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.	Course Attribute(s): Common Competency Course	Acad	LEC 3.0 3.0 3.0
CRE101HS	College Critical Reading and Critical Thinking in Health Sciences		Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in health sciences. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks.	Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.	Course Attribute(s): Common Competency Course	Acad	LEC 3.0 3.0 3.0
CRE101SM	College Critical Reading and Critical Thinking in STEM		Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to	Prerequisites: A grade of C or better in [(ENG101 or ENG107) and	Course Attribute(s): Common Competency Course	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			current issues in science, technology, engineering, and mathematics (STEM). Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks.	(RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.			
CRE101VA	College Critical Reading and Critical Thinking in Visual and Performing Arts		Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in visual and performing arts. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks.	Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.	Course Attribute(s): Common Competency Course	Acad	LEC 3.0 3.0 3.0
CRE201	Critical Reading and Writing in a Global Society		Critical evaluation of writings of authors from a variety of countries and cultures in order to gain a more global perspective of both universal and contemporary issues. Analysis, synthesis, and evaluation of various contemporary cultural viewpoints through at least two substantial writing and/or speaking tasks.	Prerequisites: A grade of C or better in (ENG101 or ENG107) and (CRE101 or exemption by score on the reading placement test).	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
CRE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
CRE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
CRE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
CRP101	Orientation - Carpenter Apprenticeship		Fundamental trade skills, employee-employer roles and responsibilities, and safe work practices needed for entry level performance in the	Prerequisites: Apprentice status or permission of the Apprenticeshi		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			construction industry. Emphasis on attaining standard industry safety credentials, practical experience using construction terminology, math and basic measuring techniques. Training for job site hazard recognition, accident prevention, safe tool and equipment operation.	p Coordinator.			
CRP102	Safety/Health Certifications for Carpentry - Carpenter Apprenticeship		Promotes hand/power tool and equipment skill development for various construction applications. Scaffold building and equipment operating procedures will also be covered. Financial and life skills will be presented to help survive in the construction industry. Upon successful completion, students will be issued United Brotherhood of Carpenters (UBC) Scaffold Erector-Welded Frame Qualification Card.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP102AI	Concrete Formwork: Concrete Stair Forms		Building stair forms from shop drawings; basic terminology related to stair form construction	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.5 1.5
CRP102AJ	Tilt-Up Construction I - Carpenter Apprenticeship		Building a form for a tilt-up slab for commercial structures complete with all necessary inserts and block-outs for openings.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.5 1.5
CRP102AN	Concrete Formwork: Culverts, Headwall and Wingwalls		Box culvert design, form systems, areas, volumes and pressures. Culvert headwall, side walls and wingwall forms using a single and double whaler	Prerequisites: Registered apprentice status or permission of the		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			assembly. Concrete industry nomenclature.	Apprenticeship Coordinator.			
CRP102AP	Concrete Formwork: Gang Forms		Building and plumbing a section of gang form using a standard whaler system complete with all the necessary components and hardware	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.5 1.5
CRP103	Tool and Equipment Applications - Carpenter Apprenticeship		Safe and appropriate use of fall protection and emergency response procedures. Tool applications presented in this training will provide opportunities for tool skill mastery and equipment operation.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP103AI	Framing: Wood Stairs		Building a set of stairs consisting of two flights and a landing from a given set of working drawings	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.5 1.5
CRP104	Basic Wall Framing - Carpenter Apprenticeship		Theory, methods, and procedures required to frame basic walls. Hands-on practice using proper tool techniques and appropriate materials. Introduction to print reading, basic wall layout, plating procedures, framing assembly and bracing.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP105AC	Interior Finish: Running Trim		Building a small frame trimmed out with a variety of moldings according to a set of shop drawings	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.5 1.5
CRP105AG	Interior Finish: Door Hardware		Installation of door hardware including knob, latch, strike plate, hinge butts, and door closer.	Prerequisites: Registered Apprentice Status and a grade of C or better in		Occ	L+L 1.0 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				CRP105AA or permission of the Apprenticeship Coordinator.			
CRP105AI	Interior Finish: Metal Partitions		Assembling metal partition unit complete with all panels and hardware	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.5 1.5
CRP105AJ	Interior Finish: Soffit Panel		Building a soffit panel with trim and detailed projections as shown on a set of shop drawings	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.5 1.5
CRP106AA	Interior Systems: Metal Frame Walls		Tools, materials, components and erection procedures of metal frame walls and soffits as shown per shop drawings	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.5 1.5
CRP106AB	Interior Systems: Dry Wall Application		Tools, materials and installation procedures for dry wall application.	Prerequisites: Registered Apprentice Status and a grade of C or better in CRP106AA or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.5 1.5
CRP106AH	Interior Systems: Dry Wall Estimation of Material		Reading and interpreting blueprints and shop drawings to estimate the amount of material needed for a dry wall project	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.5 1.5
CRP106AK	Interior Systems: Suspended Lay-In		Tools, materials, components, and	Prerequisites: Registered		Occ	L+L 1.0 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Ceilings - Carpenter Apprenticeship		erection procedures for suspended lay-in ceilings	Apprentice status or permission of the Apprenticeship Coordinator.			
CRP108	Moldings and Trim - Carpenter Apprenticeship		Course covers how moldings and trims are utilized to finish exterior and interior construction design features.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP110AA	Introduction to Carpentry I: History and Tools		History, significance and benefits of labor unions. Successful and efficient labor relations. Carpentry in relation to other construction trades. Building trades organizations. Components of lumber. Hand and power tools used in carpentry.	Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
CRP110AB	Introduction to Carpentry II: OSHA Safety		Safe and proper use of hand and power tools. Safe work habits, first aid, and cardiopulmonary resuscitation (CPR) according to Occupational Safety and Health Administration (OSHA) regulations.	Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
CRP113	Basic Roof Framing - Carpenter Apprenticeship		Introduction to basic gable roof framing, terminology, characteristics, and construction methods. Interpretation of print views and drawing elevations for job planning, rafter systems, and layout details. Review of basic rise,	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			run, rafter angles, and length calculations. Framed wall construction to facilitate gable roof assembly techniques.				
CRP114AA	Blueprint Reading for Carpenters I		Types of blueprints and basic print reading. Symbols for materials. Construction details, standards, and specifications for brick veneer. Steel supports of plans for stores and apartments.	Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
CRP116AA	Concrete Formwork I		Construction and installation techniques. Building site and layout factors. Parts of forms and related hardware. Function of concrete form work in walls, columns, beams, decks and retaining walls. Wall forms and prefabricated walls. Residential foundations.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
CRP116AB	Concrete Formwork II		Construction and installation techniques. Elements of flatwork construction	Prerequisites: A grade of C or better in CRP116AA.		Occ	LEC 2.0 2.0 2.0
CRP121	Print Reading for Carpenters - Carpenter Apprenticeship		Introduction to print reading skills for carpenters. Developing ability to interpret two-dimensional views, standard drawing methods, pictorial elements, visual and verbal communication cues. Recognizing parts of drawings, locating building and insulation features, calculating dimensions, and using views to determine construction methods.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP123	Wall Forming - Carpenter Apprenticeship		Skills and procedures for forming reinforced concrete walls using single and double waler	Prerequisites: Apprentice status or permission of		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			systems. Characteristics and application of built-in-place, prefabricated and specialty forms, wall forming, calculating layout dimensions and estimating. Overview of wall panel forming reinforcement methods, material preparation and hardware installation.	the Apprenticeship Coordinator.			
CRP124	Foundations and Flatwork - Carpenter Apprenticeship		Design and function of several types of foundations and concrete flatwork. Overview of methods, techniques and procedures for formwork layout, elevation, and construction including jobsite safety, print interpretation, material identification and basic use of builders' level.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP130	Basic Commercial Framing - Carpenter Apprenticeship		Introduction to basic rake wall framing theory and commercial construction techniques and materials.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
CRP131	Commercial Floor Framing - Carpenter Apprenticeship		Course covers floor joist construction and the various installation techniques used in the commercial industry.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP150	Acoustical Ceilings - Carpenter Apprenticeship		Introduction to basic acoustical ceiling installation in accordance with industry standards and utilizing proper techniques and procedures. Acoustical engineering and applicable building and seismic code requirements.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CRP151	Standard Acoustical Grids - Carpenter Apprenticeship		Grid patterns considered standard for acoustical ceilings in the interior system construction industry. Methods and procedures used to form patterns. Students install several standard acoustical grid patterns to print specifications using proper techniques and procedures.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP152	Acoustical Soffits - Carpenter Apprenticeship		Construction of acoustical soffits in various configurations. Square and slant-faced, tapered, concealed, drywall suspension, and sloped soffits methods. Students complete selected acoustical soffit installation.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP153	Concealed Glue-Up/Staple-Up System - Carpenter Apprenticeship		Concealed and semi-concealed ceilings and soffits, glue-up and staple-up systems, and their design flexibility. Students employ glue-up/staple-up techniques to install a concealed grid ceiling system.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP154	Metal Pan and Security Systems - Carpenter Apprenticeship		Design, function, and installation of metal pan and security systems incorporated into construction of suspended ceilings. Students install components to create a	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF)		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			monolithic appearance in a suspension ceiling grid system.	Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.			
CRP160	Basic Lathing - Carpenter Apprenticeship		Advanced methods and application techniques for lath and trim products. Basic framing and lathing methods used for exterior/interior installations. Exterior waterproofing, lath, and trim installation procedures. Students complete an exterior lathing project.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP163	Framing Ceilings and Soffits - Carpenter Apprenticeship		Materials and their application for various types of fire-rated walls, ceilings, and soffits. Methods and procedures used for layout and template development. Drywall and trim applications. Types of tools and their associated safety, applied math, and print reading fundamentals. Students complete a ceiling and soffit project.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP164	Basic Hand Finishing - Carpenter Apprenticeship		Basic hand finishing skills using correct tools and materials. Terminology and description of finishing levels, hand tool manipulation techniques, material identification, and selection criteria. Manufacturer's guidelines for environmental conditions, proper mixture preparation, and use. Typical finish issues, causes, and	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			solutions frequently employed. Tool techniques and application sequence explained and demonstrated. Importance of mixture consistency and proper coating sequence during level four hand finishing exercises.				
CRP165	Framing Curves and Arches - Carpenter Apprenticeship		Framing methods for curves and arches and their related structural limitations. Various wall and ceiling types, layout principles, and materials used for each. Lath applications and trim. Students complete a framing project including curves and arches.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP166	Automatic Finishing Tools - Carpenter Apprenticeship		Basic automatic tool techniques and finish schedule interpretation. Hands-on instruction with machine tools and the importance of proper use, assembly, and breakdown. Basic maintenance and repair techniques and safe handling demonstration. Sanding selections will be reviewed.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP167	Exterior Insulation Finish Systems - Carpenter Apprenticeship		Introduction to exterior insulation finish systems including terminology, definitions, specifications, and properties. Reinforcing mesh installation and application of insulation board. Application methods and techniques for primers and finishes. Students complete an exterior insulation	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			finishing system (EIFS) installation project.	the GateWay Apprenticeship Office.			
CRP202	Basic Stairs - Carpenter Apprenticeship		Introduction to stair framing theory, terminology, and construction techniques.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP207	Solar Installer Level I - Carpenter Apprenticeship		Design and installation of several types of solar panel systems. Methods, sequences, and procedures for layout, assembly, mounting, and elevating/positioning for solar array construction will be presented. Upon successful completion, students will receive a United Brotherhood of Carpenters (UBC) Solar Installer Level 1 Qualification Card.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
CRP210AA	Basic Framing I		Construction and installation techniques. Floor framing and layout plate for specific spacing.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
CRP210AB	Basic Framing II		Construction and installation techniques. Factors of weight, stress, tension, and compression. Truss connectors, bracing, and anchors. Gable, gambrel, hip, and shed roofs. Dormers. Intersecting roof. Roof trusses. Exterior deck. Fasteners, and connectors, and foundations	Prerequisites: A grade of C or better in CRP210AA.		Occ	LEC 2.0 2.0 2.0
CRP211	Storefront Installations - Carpenter Apprenticeship		Installation process from constructing storefront openings to putting glass components into commercial storefront metal framing. An emphasis will be placed on print interpretation,	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			window and door schedules, symbols, and material recognition.				
CRP212AA	Scaffolding for Carpenters		Occupational Safety and Health Administration (OSHA) regulations for system scaffolding. Terminology, assembly procedures, platform safety and access, and dismantling of scaffolding. Scaffolding framework to include braces, tie-ins, and guylines.	Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
CRP212AB	Level, Transit and Layout		Terminology, types, parts, handling, set up, care, storage, transport, and use of leveling instruments. Leveling rods, leveling operations, vernier scales, linear and angular measurement. Conventional system of measurement. Builder's level and transit level. Simulated fieldwork exercises.	Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
CRP212AC	Rigging - Carpenter Apprenticeship		Lifting theory and practical rigging methods and procedures. Rigging attachment procedures, lifting equipment, limits of operation, and communication practices will be covered.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
CRP214AA	Drywall Applications - Carpenter Apprenticeship		History, advantages, and applications of drywall and wall framing. Drywall products and wall framing for interior partition work. Safe tool use and jobsite safety. Blueprints, specifications, and layout. Standard framing for partitions. Drywall installation on metal framework. Suspended ceiling systems. Commercial and	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			residential installation for fire resistance, sound control, and safety.				
CRP214AC	Interior Finish: Door Installation and Hardware		Terms, tools, types of doors and door hardware. Installation procedures for doors and door hardware. Fabrication and installation of jam and trip components.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
CRP214AD	Cabinets and Tops		Fundamentals, terms, tools, safety. Types of wood and glue. Case construction: joints, layout, cutting, assembly. Hardware, plastic laminates, completed cabinets, completed tops. Installation procedures.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
CRP215	Drywall/Acoustical Ceilings - Carpenter Apprenticeship		Materials and methods used for acoustical ceilings combined with drywall installation. Seismic codes, materials, and construction requirements reviewed. Green building rating systems applied to selected acoustical and drywall materials. Installation for various grid systems. Students complete a drywall acoustical ceiling project.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP216	Designer and Specialty Trims - Carpenter Apprenticeship		Specialty skills to produce a professionally finished edge for designer ceiling installations. Techniques used to produce multiple ceiling variations using the Compasso trim system.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP217	Drywall Installation/Finish		Introduction to drywall handling methods, applications, and	Prerequisites: Admission into the		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Trims - Carpenter Apprenticeship		recommended levels of drywall finish to achieve desired aesthetics. Emphasis placed on trim attachment and finishing techniques. Identification of various types of finish trim. Students demonstrate proficiency in the proper use of automatic taping tools.	Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.			
CRP221	Advanced Print Reading - Carpenter Apprenticeship		Analyze multi-view drawings to determine construction type. Locate benchmark and building elements. Review codes, references, and perform calculations for construction/insulation planning.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
CRP222	Bridge Construction - Carpenter Apprenticeship		Overview of basic bridge construction including exterior and interior girders, edge forms, bulkheads, and hinge forms. Job-built and precast formwork methods, panel construction, assembly, and hardware installation tasks. Review of related safety, math, and print reading.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP226	Air, Moisture, and Thermal Barriers - Carpenter Apprenticeship		Increasing building envelope energy efficiency using correctly installed air, moisture, and thermal barrier systems. Hands-on installation exercises using building sealing products.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP227	Green Building and Weatherization - Carpenter Apprenticeship		Explanation of building envelope science. Audit procedures, discuss testing and reporting mechanisms used to	Prerequisites: Apprentice status or permission of the		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			measure inefficiencies. Course provides novice workers with fundamental skills to properly install the beneficial "green" and cost-effective, energy-efficient retrofits for residential buildings.	Apprenticeship Coordinator.			
CRP228	Water Treatment Facilities - Carpenter Apprenticeship		Instruction in the detailing, layout, and construction of concrete formwork and waterstop used in water treatment facilities.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP232	Stair and Ramp Forming - Carpenter Apprenticeship		Methods, procedures and practices used to form stair and ramp structures including configuration and dimensions. Review of Stinger riser and stair thread calculations, state and federal building codes.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP233	Basic Metal Framing - Carpenter Apprenticeship		Overview of residential metal framing theory and construction techniques. Interpretation of prints for job planning and estimation of materials. Layout and detail of wall plates, measuring techniques, calculating principles, wall and roof assembly and installation techniques.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP234	Transit Level/Laser - Carpenter Apprenticeship		Detailing, layout and construction of abutments used in the heavy highway industry. Overview of assembly components, key terms and abutment anatomy; footings; piers and retaining walls. Techniques for laying out keyway centerline and footing formwork construction.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP235	Advanced Metal Framing - Carpenter Apprenticeship		Review of basic metal framing. Detailed procedures for framing curved, serpentine, and	Prerequisites: Admission into the Southwest		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			elliptical non-load-bearing partitions. Use of standard light gage components and other materials. Project emphasizing advanced techniques to expedite work processes.	Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.			
CRP241	Gang Forms/Columns		Formwork types, applications and construction methods for gang and column forms using built and manufactured forming systems. Heavy timber gang forms and use of taper ties, bracing, and bulkhead tables.	Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP242	Doors/Door Hardware - Carpenter Apprenticeship		Installation process for several types of security and exit door hardware. Print interpretation, codes, door schedules, symbols, and hardware recognition.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP243	Scaffold Erector Qualification		Safety and terminology related to scaffold built applications, elevated platform use, span and loading criteria, access and egress, stability, and structural connections and inspections. Project drawing review for locating dimensions, determining layout and scaffold material requirements. Erection/dismantling sequence for the development of job planning, preparation skills and applied math.	Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
CRP244	Cabinet Installation - Carpenter Apprenticeship		Cabinet installation from establishing the design layout to attaching	Prerequisites: Apprentice status or		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			countertops. Print interpretation, job planning, scribing techniques, and proper installation sequence.	permission of the Apprenticeship Coordinator.			
CRP250	Prefab/Sound Panels - Carpenter Apprenticeship		Basic description of acoustical effectiveness of prefabricated sound panels. Planning, location, and installation of ceiling and wall panels.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP251	Advanced Acoustical Ceilings Layout - Carpenter Apprenticeship		Advanced layout methods used to complete accent acoustical ceiling installations. Seismic codes and hanger requirements. Layout techniques for establishing geometric designs. Students complete acoustical ceiling layout projects.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP252	Advanced Acoustical Ceiling Installations - Carpenter Apprenticeship		Identifying materials and methods used for the advanced installation of acoustical ceilings. Installation for custom and intricate grid systems. Green building rating systems applied to selected acoustical materials. Students complete a complex acoustical ceiling project.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP253	Framing Curves and Arches - Carpenter Apprenticeship		Framing methods for curves and arches and their related structural	Prerequisites: Admission into the		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			limitations. Identifying various wall and ceiling types and layout principles and materials used for each. Lath applications and trim. Students complete a framing project that includes curves and arches.	Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.			
CRP255	Fire Stopping/Fire Proofing Procedures - Carpenter Apprenticeship		Methods, technical skills, and fire stopping/fire proofing materials used to meet industry code requirements. Students apply and test fire stopping/fire proofing materials in a controlled environment.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP260	Advanced Lathing - Carpenter Apprenticeship		Advanced skills for the interior/exterior application of lathing materials. Wall anatomy terminology, applicable codes, lathing materials, and waterproofing methods. Includes key discussions to draw attention to typical installation issues, causes, and solutions frequently employed to correct flaws. Detailed project drawing review, providing practical experience for design analysis, material requirement, and code assessment. Emphasis on construction sequence will foster the development of job planning, preparation, and applied math skills. Importance of applicable building codes, tool use,	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			safety, accuracy, construction sequence, and proper use of waterproofing techniques will be stressed during lathing exercises.				
CRP261	Free-Form Lathing - Carpenter Apprenticeship		Comprehensive study of the theory and techniques used for development of freeform lathing projects. Students interpret gridline drawings, lay out and build lath cage work, and apply the appropriate lath(s) to achieve the desired or designed form or structure.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP263	Ceiling and Soffit Finishing - Carpenter Apprenticeship		Advanced level of finishing skills for applications with architecturally detailed ceilings and soffits. Determining type and quantity of materials for various designs and differentiating between levels of finish. Guided practice with a combination of hand and automatic tool techniques, promoting manipulative ability required for a successful result. Variety of finish trims integrated into each method of finish. Inspection criteria for evaluating finish levels.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP264	Advanced Hand Finishing - Carpenter Apprenticeship		Advanced methods and applications using hand tool techniques. Proper sequence of operation, phases, and materials to be used in order to produce a higher-level finished product to industry standards. Curved and radius wall characteristics for finish levels. Wall frame	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			components, materials used, surface preparation, and application methods. Students complete a project to a level five standard.	permission of the GateWay Apprenticeship Office.			
CRP267	Wet Wall Finishes - Carpenter Apprenticeship		Industry methods, mediums, and typical applications of wet wall finishes. Includes terminology and description of industry standard finishing levels, application tool types and techniques, and material identification and selection. Manufacturer's guidelines highlighting the environmental conditions for proper mixture preparation and use. Key discussions drawing attention to typical finish issues, causes, and solutions frequently employed. Emphasis on the selection and use of low volatile organic compounds (VOC) products. Importance of mixture consistency and proper coating sequence during wet wall finishing exercises.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP268	Decorative Trims - Carpenter Apprenticeship		Advanced hand and automatic tool finishing techniques used to apply decorative trims. Product information for metal, paper, plastics, and art beads. Special attention given to coating and sanding sequence of selected specialty trim installations and waste reduction.	Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.		Occ	L+L 3.0 3.0 3.0
CRP280	Total Station (Robotics) -		Terminology, optical principles, and operating procedures for transit	Prerequisites: Admission into the		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Carpenter Apprenticeship		and laser levels. Students will set up levels, determine benchmarks, and take and record elevation readings.	Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office.			
CRP296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
CRP296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE	average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
CRP296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career interest or with permission of Instructor.			
CRP296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
CRP298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
CRP298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
CRP298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
CRW120	Introduction to Writing Children's Literature		Overview of writing children's literature. Emphasis on genres and standards for quality. Development of techniques in reading, evaluating, writing, revising, and editing literature written for	Prerequisites: None, ENH291 suggested but not required.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			children ENH291 suggested but not required				
CRW150	Introduction to Creative Writing		Introduction to the basic aesthetics and techniques in contemporary creative writing within a variety of genres. Introduction to the analytical concepts and terminology necessary to understand, interpret, and enact contemporary creative writing. Facilitation of writing practices and evaluation. Introduction to literature's role in society.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CRW160	Introduction to Writing Poetry		Prewriting (invention and discovery); writing; analyzing and evaluating (in workshop); and revising to practice manipulating various elements of poetry, critique one's own and the poetry of others, and produce a portfolio of finished, marketable poems .	Prerequisites: None. CRW150 recommended but not required.		Acad	LEC 3.0 3.0 3.0
CRW161	Focused Topics in Writing: Poetry		Analysis, writing, and revision of genre or elements within poetry.	Prerequisites: None. CRW150 suggested but not required.	CRW161 may be repeated for a total of three (3) credit hours.	Acad	LEC 1.0 1.0 1.0
CRW170	Introduction to Writing Fiction		Practice in writing fiction through a process of prewriting (invention and discovery), writing, analysis and evaluation (in workshop), and revision; practice in manipulating various elements and forms of fiction.	Prerequisites: None. CRW150 recommended but not required.		Acad	LEC 3.0 3.0 3.0
CRW172	Introduction to Comic Book Writing		Introduction to elements and techniques of comic book writing in its specific form; teaches terminology and concepts needed for the successful participation	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			in writing workshops; focuses on proposal outline, planning, structure facilitates writing practice (including character study) and evaluation; offers individual suggestions in the student's development in this genre.				
CRW176	Writing Narrative for Video Games		Provides an introduction to narrative theory as it relates to video game production. Delivers a variety of video game storylines, narrative theories, and processes for narrative development in video games. Terminology and video game industry standards are covered. Offers discussion of team building and the role of video games in society.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CRW180	Introduction to Writing Nonfiction		Practice in writing creative nonfiction, including autobiography and biography, the essay, reviews, and humor using a process of invention and discovery, writing, analysis, evaluation, and revision. Combines lecture, discussion, and workshop, leading to the production of marketable quality creative nonfiction.	Prerequisites: None. CRW150 recommended but not required.		Acad	LEC 3.0 3.0 3.0
CRW190	Introduction to Screenwriting		Overview of screenwriting elements; introduction to screenwriting techniques CRW150 recommended but not required.	Prerequisites: None. CRW150 recommended but not required.		Acad	LEC 3.0 3.0 3.0
CRW191	Focused Topics in Writing: Plays		Analysis, writing, and revision of genre or elements within plays and/or motion picture screenplays.	Prerequisites: None. CRW150 suggested but not required.	CRW191 may be repeated for a total of three (3) credit hours.	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CRW200	Readings for Writers		Close analysis and interpretation of selected literary texts designed to strengthen the students' own writing by extending their familiarity with the genre in which they write and their knowledge of selected literary elements. One-on-one meetings between student and instructor.	Prerequisites: A grade of C or better in RW150 or permission of Instructor.	CRW200 may be repeated for a total of six (6) credits.	Acad	LAB 1.0 1.0 0.0
CRW201	Portfolio		Close analysis of the creative writing portfolio culminating in selection, revision, editing, and compiling of the student's own literary work in a portfolio. Students meet individually with instructor to choose, prepare, and compile their work.	Prerequisites: (Acceptance into Creative Writing Certificate Program and completion of at least nine (9) credit hours in creative writing (CRW)), or permission of Program Director.	CRW201 may be repeated for a total of two (2) credit hours.	Acad	LAB 1.0 1.0 0.0
CRW202	The Writer as Witness		Studio course focusing on writing with the writer as witness of the world: pre-writing, writing, analysis, evaluation, and writing of monologue and dialogue in various formats	Prerequisites: A grade of C or better in CRW150 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW203	Dialogue		Studio course focusing on writing dialogue in a variety of genres; prewriting, writing, analysis, evaluation, and writing of monologue and dialogue in various formats	Prerequisites: A grade of C or better in CRW150 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW204	Journaling		Studio course focusing on journal writing	Prerequisites: A grade of C or better in CRW150 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW220	Intermediate Writing Children's Literature		Application of techniques in writing literature for children. Emphasis on independent writing, self-evaluation, and revision. Includes completion of a	Prerequisites: A grade of C or better in CRW120 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			major writing project of marketable quality				
CRW251	Topics in Creative Writing		Analysis, writing, and revision focused on a selected element applicable to all genres of creative writing.	Prerequisites: None. CRW150 recommended.	CRW251 may be repeated, topic must be different, for a total of nine (9) credit hours.	Acad	LEC 3.0 3.0 3.0
CRW260	Intermediate Poetry Writing		Emphasis on writing a series of original poems; analysis and evaluation of the functions and effects of established works of poetry; concentration on evaluation and revising students' poetry through intensive workshopping.	Prerequisites: A grade of C or better in CRW160 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW261	Topics in Writing: Poetry		Analysis, writing, and revision of genre or element within poetry	Prerequisites: A grade of C or better in CRW150 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW270	Intermediate Fiction Writing		Writing original short stories; analysis of works of fiction; concentration on revising students' fiction through intensive workshopping.	Prerequisites: A grade of C or better in CRW170.		Acad	LEC 3.0 3.0 3.0
CRW271	Topics in Writing: Fiction		Analysis, writing, and revision of genre or element within fiction	Prerequisites: A grade of C or better in CRW150 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW272	Planning and Structuring the Novel		Focus on planning, structuring, and beginning a novel; prewriting, writing, analysis, evaluation, and revision of novel plans and excerpts	Prerequisites: A grade of C or better in CRW150 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW273	Writing the Novel		Provides the beginning novelist with structure, support, and guidance vital to sustained writing; focus on establishing goals and using critique sessions with instructor and peers to draft a novel; open- and topic-focused in-class forums,	Prerequisites: A grade of C or better in CRW272 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			novel writing, peer and instructor critiques				
CRW274	Revising the Novel		Studio course workshop format. Requires a complete novel finished, in manuscript, ready for revision and polishing	Prerequisites: A grade of C or better in CRW273 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW281	Topics in Writing: Non-Fiction		Analysis, writing, and revision of genre or element within non-fiction	Prerequisites: A grade of C or better in CRW150 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW290	Intermediate Screenwriting		Drafting and revision of original screenplay; overview of marketing a screenplay	Prerequisites: A grade of C or better in CRW190 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW291	Topics in Writing: Plays		Analysis, writing, and revision of genre or element within plays and/or motion picture screenplays	Prerequisites: A grade of C or better in CRW150 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CRW298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Acad	LAB 1.0 1.0 0.0
CRW298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
CRW298A C	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Acad	LAB 3.0 3.0 0.0
CSC100	Introduction to Computer Science (C++)		Concepts of problem solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science.	Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher or permission of Instructor or Department/ Division Chair.		Acad	L+L 3.0 3.0 3.0
CSC100AA	Introduction to Computer Science (C++)		Concepts of problem solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors	Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate		Acad	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			other than Computer Science.	District placement for MAT15+ or higher or permission of Instructor or Department/ Division Chair.			
CSC100AB	Introduction to Computer Science (C++)		Concepts of problem-solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science.	Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher or permission of Instructor or Department/ Division Chair.		Acad	L+L 4.0 4.0 4.0
CSC110	Introduction to Computer Science (Java)		Concepts of problem-solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities. Intended for Computer Science and Computer Systems Engineering majors.	Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher or permission of Instructor or Department/ Division Chair.		Acad	L+L 3.0 3.0 3.0
CSC110AA	Introduction to Computer Science (Java)		Concepts of problem-solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities.	Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an		Acad	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Intended for Computer Science and Computer Systems Engineering majors.	appropriate District placement for MAT15+ or higher or permission of Instructor or Department/ Division Chair.			
CSC110AB	Introduction to Computer Science (Java)		Concepts of problem-solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities. Intended for Computer Science and Computer Systems Engineering majors.	Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher or permission of Instructor or Department/ Division Chair.		Acad	L+L 4.0 4.0 4.0
CSC120	Digital Design Fundamentals	EEE120	Number systems, conversion methods, binary and complement arithmetic, Boolean switching algebra and circuit minimization techniques. Analysis and design of combinational logic, flip-flops, simple counters, registers, ROMs, PLDs, synchronous and asynchronous sequential circuits, and state reduction techniques. Building physical circuits.	Prerequisites: None. Corequisites: CSC100 or CSC110 or permission of Instructor.		Acad	L+L 4.0 6.0 6.0
CSC150	Programming in C/C++		Introduction to C and C++ programming. Flow control, functions, pointers, data structures, file handling, and introduction to object-oriented programming	Prerequisites: Permission of Instructor.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CSC150AA	Programming in C/C++		Introduction to C and C++ programming. Flow control, functions, pointers, data structures, file handling, and introduction to object-oriented programming	Prerequisites: Permission of Instructor.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	LEC 4.0 4.0 4.0
CSC180	Computer Literacy		Introduction to computers and technology and their impact on society. Explores technology, current topics in computing, applications and related issues. Students gain fluency in integrating technology to solve problems using computational thinking. Use of application software to create documents, spreadsheets, databases, e- mail and text files, and use of Internet browsers.	Prerequisites: None.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	LEC 3.0 3.0 3.0
CSC180AA	Computer Literacy		Introduction to computers and technology and their impact on society. Explores technology, current topics in computing, applications and related issues. Students gain fluency in integrating technology to solve problems using computational thinking. Use of application software to create documents, spreadsheets, databases, e- mail and text files, and use of Internet browsers.	Prerequisites: None.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	L+L 3.0 4.0 4.0
CSC180AB	Computer Literacy		Introduction to computers and technology and their impact on society. Explores technology, current topics in computing, applications	Prerequisites: None.	Course Attribute(s): General Education Designation : Computer/S	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and related issues. Students gain fluency in integrating technology to solve problems using computational thinking. Use of application software to create documents, spreadsheets, databases, e- mail and text files, and use of Internet browsers.		tatistics/Qu antitative Applications - [CS]		
CSC181	Applied Problem Solving with Visual BASIC		Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business.	Prerequisites: None.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	LEC 3.0 3.0 3.0
CSC181AA	Applied Problem Solving with Visual BASIC		Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business.	Prerequisites: None.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	L+L 3.0 4.0 4.0
CSC181AB	Applied Problem Solving with Visual BASIC		Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business	Prerequisites: None.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	LEC 4.0 4.0 4.0
CSC182	Principles of Programming with C#.NET		Introduction to object-oriented program analysis, design, and development using Visual C#.NET. Includes general concepts, data types, expressions, flow control, methods, classes, arrays, event-driven models, Windows	Prerequisites: None.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			applications, and Web applications				
CSC182AA	Principles of Programming with C#.NET		Introduction to object-oriented program analysis, design, and development using Visual C#.NET. Includes general concepts, data types, expressions, flow control, methods, classes, arrays, event-driven models, Windows applications, and Web applications	Prerequisites: None.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	L+L 3.0 4.0 4.0
CSC185	World Wide Web and Introductory Internet Programming		Organization of and access to information on the Internet. Design, creation and publication of interactive web pages with HTML, multimedia, animated custom graphics, applets and JavaScript programming. Ethical issues, including security and privacy on the World Wide Web	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
CSC185AA	World Wide Web and Introductory Internet Programming		Organization of and access to information on the Internet. Design, creation and publication of interactive web pages with HTML, multimedia, animated custom graphics, applets and JavaScript programming. Ethical issues, including security and privacy on the World Wide Web	Prerequisites: None.		Acad	L+L 3.0 4.0 4.0
CSC200	Principles of Computer Science (Java)		Introduction to computer science. Issues and concepts throughout the field, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Programming in Java.	Prerequisites: A grade of C or better in CSC110 or (CSC100 or equivalent) and permission of Instructor.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	L+L 3.0 3.0 3.0
CSC200AA	Principles of Computer Science (Java)		Introduction to computer science. Issues and concepts throughout the field, including software development, data organization, machine architecture, algorithmic	Prerequisites: A grade of C or better CSC110 or (CSC100 or equivalent) and	Course Attribute(s): General Education Designation : Computer/S	Acad	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			machines, and ethics in computing. Programming in Java	permission of instructor).	tatistics/Qu antitative Applications - [CS]		
CSC200AB	Principles of Computer Science (Java)		Introduction to computer science. Issues and concepts throughout the field, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Programming in Java	Prerequisites: A grade of C or better in CSC110 or (CSC100 or equivalent) and permission of Instructor.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	L+L 4.0 4.0 4.0
CSC205	Object Oriented Programming and Data Structures		Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms.	Prerequisites: A grade of C or better in CSC110 or permission of Instructor.		Acad	L+L 3.0 3.0 3.0
CSC205AA	Object Oriented Programming and Data Structures		Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms.	Prerequisites: A grade of C or better in CSC110 or permission of Instructor.		Acad	L+L 3.0 4.0 4.0
CSC205AB	Object Oriented Programming and Data Structures		Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms.	Prerequisites: A grade of C or better in CSC110 or permission of Instructor.		Acad	L+L 4.0 4.0 4.0
CSC205AC	Object Oriented Programming and Data Structures		Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms.	Prerequisites: A grade of C or better in CSC110 or permission of Instructor.		Acad	L+L 4.0 5.0 5.0
CSC205AD	Object Oriented Programming and Data Structures		Covers Object-Oriented design and programming; elementary data structures; arrays; lists;	Prerequisites: A grade of C or better in CSC110 or		Acad	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			stacks; queues; binary trees; recursion; searching and sorting algorithms.	permission of Instructor.			
CSC210	Data Structures and Algorithms (Java)		Static and dynamic data structures and associated applications; recursive and iterative sorting and searching algorithms; introduction to object oriented design and programming techniques; software engineering methods including design models and implementation/testing strategies; professional responsibilities; Java language.	Prerequisites: A grade of C or better in CSC200.		Acad	L+L 3.0 3.0 3.0
CSC210AA	Data Structures and Algorithms (Java)		Static and dynamic data structures and associated applications; recursive and iterative sorting and searching algorithms; introduction to object oriented design and programming techniques; software engineering methods including design models and implementation/testing strategies; professional responsibilities; Java language	Prerequisites: A grade of C or better in CSC200.		Acad	L+L 3.0 4.0 4.0
CSC210AB	Data Structures and Algorithms (Java)		Static and dynamic data structures and associated applications; recursive and iterative sorting and searching algorithms; introduction to object oriented design and programming techniques; software engineering methods including design models and implementation/testing strategies; professional responsibilities; Java language.	Prerequisites: A grade of C or better in CSC200.		Acad	L+L 4.0 4.0 4.0
CSC220	Programming for Computer Engineering	EEE220	Introduction to procedural programming (C/C++) and hardware	Prerequisites: A grade of C or better in ((EEE120 or		Acad	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			description language (VHDL).	CSC120) and CSC205) or permission of Instructor.			
CSC225	Assembly Language Programming on Motorola Microprocessors		Assembly language programming including input/output programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Macintosh-based assignments.	Prerequisites: A grade of C or better in (CSC100 or CSC110 or CSC200) and CSC/EEE120 or permission of Instructor.		Acad	L+L 4.0 5.0 5.0
CSC230	Computer Organization and Assembly Language	EEE230	Assembly language programming including input/output (I/O) programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Processor organization and design, data path, control, pipelining, and input/output. Memory organization with cache and virtual memory.	Prerequisites: A grade of C or better in [(CSC100 or CSC110) and CSC120 EEE120] or permission of Instructor.		Acad	L+L 4.0 5.0 5.0
CSC240	Introduction to Different Programming Languages		Introduction to procedural (C/C++), applicative (LISP), and declarative (Prolog) languages.	Prerequisites: A grade of C or better in CSC205 or permission of Instructor.		Acad	L+L 3.0 5.0 5.0
CSC240AA	Introduction to Different Programming Languages		Introduction to procedural (C/C++), applicative (LISP), and declarative (Prolog) languages.	Prerequisites: A grade of C or better in CSC205 or permission of Instructor.		Acad	LEC 4.0 4.0 4.0
CSC250	Advanced Programming Using C++		Developing Applications in C++; moving from C to C++ including objects and classes, inheritance, polymorphism and data abstraction	Prerequisites: A grade of C or better in CSC150 or permission of Instructor.		Acad	L+L 3.0 5.0 5.0
CSC250AA	Advanced Programming Using C++		Developing Applications in C++; moving from C to C++ including objects and classes, inheritance, polymorphism and data abstraction	Prerequisites: A grade of C or better in CSC150 or permission of Instructor.		Acad	LEC 4.0 4.0 4.0
CSC260	Object-Oriented Programming in Java		Software development in Java including both	Prerequisites: A grade of C		Acad	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			applets and applications, in both standard and graphical programming. Includes objects and classes, inheritance, polymorphism, graphical programming with the Abstract Windows Toolkit and the Swing extension, graphical user interface design and layout, event handling, and exception handling	or better in CSC150 or CSC200 or permission of Instructor.			
CSC260AA	Object-Oriented Programming in Java		Software development in Java including both applets and applications, in both standard and graphical programming. Includes objects and classes, inheritance, polymorphism, graphical programming with the Abstract Windows Toolkit and the Swing extension, graphical user interface design and layout, event handling, and exception handling	Prerequisites: A grade of C or better in CSC150 or CSC200 or permission of Instructor.		Acad	LEC 4.0 4.0 4.0
CSC261	Advanced Programming in Java		Advanced topics in Java including the JavaBean component model, multithreading, client/server development using Java sockets, the Java Database Connectivity interface (JDBC), and remote method invocation (RMI)	Prerequisites: A grade of C or better in CSC260 or permission of Instructor.		Acad	LEC 3.0 4.0 3.7
CSC261AA	Advanced Programming in Java		Advanced topics in Java including the JavaBean component model, multithreading, client/server development using Java sockets, the Java Database Connectivity interface (JDBC), and remote method invocation (RMI).	Prerequisites: A grade of C or better in CSC260 or permission of Instructor.		Acad	LEC 4.0 4.0 4.0
CSC270	C# Programming		Developing C# applications for the Microsoft .NET platform. Use of object-oriented principles in developing	Prerequisites: A grade of C or better in CSC200 or CSC250 or CSC260 or		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			modularized C# programs	permission of Instructor.			
CSC270AA	C# Programming		Developing C# applications for the Microsoft .NET platform. Use of object-oriented principles in developing modularized C# programs	Prerequisites: A grade of C or better in CSC200 or CSC250 or CSC260 or permission of Instructor.		Acad	L+L 3.0 4.0 4.0
CSC270AB	C# Programming		Developing C# applications for the Microsoft .NET platform. Use of object-oriented principles in developing modularized C# programs	Prerequisites: A grade of C or better in CSC200 or CSC250 or CSC260 or permission of Instructor.		Acad	L+L 4.0 4.0 4.0
CSC281	Advanced Programming in Visual Basic		Graphical user interfaces are generated for advanced programming applications using Visual Basic. Event-driven programs, programming mouse interactions, interactive computer graphics, file processing, and how to distribute application programs	Prerequisites: A grade of C or better in CSC100 or CSC181 or equivalent programming knowledge or permission of Instructor.		Acad	L+L 3.0 4.0 4.0
CSC281AA	Advanced Programming in Visual Basic		Graphical user interfaces are generated for advanced programming applications using Visual Basic. Event-driven programs, programming mouse interactions, interactive computer graphics, file processing, and how to distribute application programs	Prerequisites: A grade of C or better in CSC100 or CSC181 or equivalent programming knowledge or permission of Instructor.		Acad	LEC 4.0 4.0 4.0
CSC282AA	Volunteerism for Computer Science: A Service Learning Experience		Service learning field experience within private/public agencies, educational institutions, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CSC282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CSC282AB	Volunteerism for Computer Science: A Service Learning Experience		Service learning field experience within private/public agencies, educational institutions, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CSC282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
CSC282AC	Volunteerism for Computer Science: A Service Learning Experience		Service learning field experience within private/public agencies, educational institutions, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CSC282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
CSC283	Bioinformatics and Scientific Computing	BIO283	Introduction to bioinformatics, including history, concepts, major genetic databases and access tools. Computer software and techniques for analyzing one nucleotide or protein sequence, searching for similar sequences, and aligning and comparing two or multiple sequences. Microarray analysis and phylogenetic trees. Application of standard software to bioinformatic computing tasks, including word processing of reports, and use of spreadsheets for statistical analysis and graphing. Text editors, Unix, Internet web site searching and construction, and ethics.	Prerequisites: A grade of C or better in [(BIO156 or BIO181) and (MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+ or higher)], or permission of Instructor or Department/ Division Chair. Concurrent enrollment in, or previous completion of BIO208 is strongly suggested		Acad	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				but not required.			
CSC283AA	Bioinformatics and Scientific Computing		Introduction to Bioinformatics, including history, concepts, major genetic databases and access tools. Computer software and techniques for analyzing one nucleotide or protein sequence, searching for similar sequences, and aligning and comparing two or multiple sequences. Microarray analysis and phylogenetic trees. Application of standard software to bioinformatic computing tasks, including word processing of reports, and use of spreadsheets for statistical analysis and graphing. Text editors, Unix, Internet web site searching and construction, and ethics.	Prerequisites: A grade of C or better in [BIO220 and (MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher)] or permission of Instructor or Department/ Division Chair.		Acad	LEC 4.0 4.0 4.0
CSC284	Web Programming and Design with FLASH		Design and publication of interactive web pages using Macromedia FLASH and Action Script. Animation, graphics design, timeline, layers, sound, movie clips, libraries, publishing with HTML, event driven programming, interactive programming of FLASH objects, form processing in FLASH, and programming constructs	Prerequisites: A grade of C or better in CSC185 or CIS233 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CSC284AA	Web Programming and Design with FLASH		Design and publication of interactive web pages using Macromedia FLASH and Action Script. Animation, graphics design, timeline, layers, sound, movie clips, libraries, publishing with HTML, event driven programming, interactive programming of FLASH objects, form processing	Prerequisites: A grade of C or better in CSC185 or CIS233 or permission of Instructor.		Acad	LEC 3.0 4.0 3.7

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			in FLASH, and programming constructs				
CSC285	Computer Programming in the WWW Environment		Software development paradigms and environments including Advanced HTML, JavaScript, Common Gateway Interface (CGI) and CGI scripting languages. Security and large scale data management	Prerequisites: A grade of C or better in CSC185 and prior programming experience/c coursework.		Acad	LEC 4.0 4.0 4.0
CSC285AA	Computer Programming in the WWW Environment		Software development paradigms and environments including Advanced HTML, JavaScript, Common Gateway Interface (CGI) and CGI scripting languages. Security and large scale data management.	Prerequisites: A grade of C or better in CSC185 and prior programming experience/c coursework.		Acad	LEC 3.0 4.0 3.7
CSC294	Special Topics in Computing		Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues	Prerequisites: Permission of Instructor.		Acad	LEC 3.0 3.0 3.0
CSC294AA	Special Topics in Computing		Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues	Prerequisites: Permission of Instructor.		Acad	L+L 3.0 4.0 4.0
CSC294AB	Special Topics in Computing		Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues	Prerequisites: Permission of Instructor.		Acad	LEC 2.0 2.0 2.0
CSC294AC	Special Topics in Computing		Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues	Prerequisites: Permission of Instructor.		Acad	L+L 2.0 3.0 3.0
CSC294AD	Special Topics in Computing		Investigation of special topics in computing technology and applications. Examination of industry	Prerequisites: Permission of Instructor.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			trends to solve problems and/or investigate issues				
CSC294AE	Special Topics in Computing		Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues	Prerequisites: Permission of Instructor.		Acad	L+L 1.0 2.0 2.0
CSC296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
CSC296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
CSC296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CSC296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0
CSC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CSC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
CSC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
CSI105	Debt Resolution Enrollment		Overview of debt resolution enrollment procedures. Covers characteristics of debt settlement, including regulatory entities, information security, and client hardships. Also includes procedures for completing quality enrollment calls, as well as a review of resources available to clients.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CSI154	Introduction to Debt Settlement		Introduction to the debt settlement industry. Covers customer service representative role in debt settlement including types of hardships, debt solutions, account resources, and legal services available to clients. Also includes Fair Debt Collection Practices Act regulations.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSI155	Customer Service for Debt Settlement		Basic customer service principles for debt settlement. Evaluation of various program services as well as types of client debt. Emphasis on elements of customer service debt settlement transactions and effective communication.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CSI161	Financial Services Retirement Plans		Introduction to financial service retirement accounts. Includes applicable vocabulary, Internal Revenue Service (IRS) codes, qualified and supplemental plans as well as loan options. Also covers deferred compensation and money sources.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CSI163	Employer Sponsored Retirement Plans		Characteristics, restrictions, and guidelines for various employer sponsored retirement plans. Includes lifecycles and processes.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
CSI164	Debt Resolution Account Procedures		Procedures for maintaining debt settlement customer accounts. Emphasis on screens and processes used to maintain accounts, provide education resources to customers, and respond to customer inquiries.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CSI165	Introduction to Financial Customer Service		Introduction to customer service procedures for managing member accounts. Covers	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			computerized systems including online documentation and database usage. Procedures for account maintenance included as well as procedures for handling initial member requests. Emphasis on professional communication and customer service skills.				
CSI166	Debt Settlement Services		Practical application of customer service representative debt settlement skills. Includes various types of customers, calls, and interactions in addition to procedures for navigating client accounts. Also covers account modifications, legal services, and negotiations procedures.	Prerequisites: None.		Occ	LAB 2.0 6.0 6.0
CSI167	Financial Systems Customer Service		Practical application of financial account procedures for customer services representatives. Includes procedures for initiating and completing distributions, loan, service credits purchase, and Qualified Domestic Relationship Orders (QDRO) in addition to processing death claims.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CSI168	Introduction to Debt Resolution Sales		Introduction to debt resolution sales and the debt settlement industry. Covers characteristics, solutions, components, and regulators of debt settlement including the Fair Debt Collection Practices Act. Also includes types of hardships and financial distress, credit reports, and resources available to clients, in addition to an introduction to the sales process.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CSI174	Debt Resolution Sales Procedures		Practical application of debt resolution sales procedures. Covers	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			consultative sales tools and services used in the provision of direct debt management sales. Includes approval calls, enrollment agreements, underwriting and file submission procedures as well as tax consequences and managing client objections.				
CSI180	Debt Resolution Sales Practices		Further application of debt resolution sales procedures. Covers consultative sales tools and services used in the provision of direct debt management sales. Includes approval and welcome calls, enrollment agreements, underwriting and file submission procedures as well as disclosures and tax consequences.	Prerequisites: A grade of C or better in CSI174.		Occ	L+L 2.0 4.0 4.0
CSI182	Introduction to Loan Consolidation		Introduction to loan consolidation in the debt settlement industry. Covers consolidation loan terminology, details, cycles, and benefits as well as disclosures and effective business communication for the loan consultant.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSI184	Loan Consolidation Procedures		Practical application of loan consolidation procedures. Covers benefits of and processes for loan consolidation as well as consultative sales tools and services used in the provision of direct debt management sales. Includes initial calls, enrollment agreements, and customer education procedures as well as effective communication strategies.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CSI202	Debt Settlement Loan Servicing		Consolidation loan servicing procedures. Covers types of loans, features, and guidelines	Prerequisites: None.		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			as well as enrollment structure and loan calculations. Also covers payments, customer protections, and procedures for account collections.				
CSI206	Banking Member Service Representative		Introduction to banking member service representative roles and responsibilities. Includes communication and problem solving skills when dealing with members. Also covers various types of banking products and services available to members as well as an introduction to computerized banking and online documentation systems.	Prerequisites: None. Corequisites: CSI207, CSI208 and CSI209.		Occ	LEC 3.0 3.0 3.0
CSI207	Banking Accounts and Products		Knowledge of bank accounts, products, and procedures for banking member service representatives. Covers new accounts, credit cards, debit cards, certificates of deposit and individual retirement accounts. Self-service banking benefits and procedures as well as cash advances and funds transfers included.	Prerequisites: None. Corequisites: CSI206, CSI208 and CSI209.		Occ	LEC 3.0 3.0 3.0
CSI208	Banking Account Management		Account management procedures for banking member service representatives. Banking terminology and maintenance procedures including member verification and privacy policies. Includes fraud handling and common banking inquiries by members such as updating account information, stopping payments, reordering checks, and requesting refunds. Retention of banking members also covered.	Prerequisites: None. Corequisites: CSI206, CSI207 and CSI209.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CSI209	Banking Account Management Lab		Practical application of banking member services and procedures. Covers computerized banking systems including online documentation and database usage. Procedures for new accounts and account maintenance included as well as procedures for handling various member requests. Communication and customer service skills emphasized.	Prerequisites: None. Corequisites: CSI206, CSI207 and CSI208.		Occ	LAB 1.0 2.0 2.0
CSI250	Customer Service for Credit Counselors		Basic customer service principles for the credit counselor. Examination of credit-counseling programs covered. Emphasis on elements of customer service transactions	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CSI251	Legal Issues In Credit Counseling		Overview of laws and practices in granting credit. Types of credit and calculating finance charges included. Emphasis on implications of inadequate payment history on credit ratings.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CSI252	Credit Counseling New Accounts		Overview of establishing new client accounts in a credit- counseling program. Emphasis on screens used to setup an account.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CSI255	Account Maintenance Procedures		Account maintenance procedures for customer service representatives. Emphasis on managing ongoing client accounts. Covers contact with creditors and clients	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CSI257	Credit Counseling Account Processes		Overview of maintaining a client account in a credit counseling program. Emphasis on screens used to maintain an account.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CSI258	Credit Counseling and Financial Management		Overview of financial topics relevant to clients and their accounts.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Covers creditor information and policies as well as procedures for account review. Also includes identification of and education regarding client financial issues in addition to client resource identification and use.				
CSM101	Quality Customer Service	TQM101	Examines the nature of quality customer service and the attitudes, knowledge, and skill needed to work effectively in a quality customer service environment. Foundation skills for quality customer services are taught, applied, and practiced	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CSN102DA	Customer User Support		Examines skills, tools and strategies necessary for becoming a computer help-desk or end-user support professional.	Prerequisites: None.		CLK	110
CSN110	Information Security Fundamentals		Fundamental concepts of information technology security. Topics include authentication methods, access control, cryptography, public key infrastructure (PKI), network attack and defense methods, hardening of operating systems and network devices, securing remote access and wireless technologies and securing infrastructures and topologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of transmission control protocol/internet protocol (TCP/IP) and security concepts and Microsoft (MS) Windows and Linux administration.	Prerequisites: A grade of C or better in CSN126DL or CSN126RH or permission of Program Director. Corequisites: CSN150++ or CSN270.		CLK	122

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CSN126DL	Linux Operating System		Introduction to the Linux operating system. Develop knowledge and skills required to install, configure and troubleshoot a Linux-based workstation including basic network functions. Learn basic command line and graphical user interface (GUI) desktop environment utilities and applications. Fundamental abilities to achieve the entry-level industry certification covered.	Prerequisites: None.		CLK	110
CSN140AB	Introduction to Networks		Focus on the architecture, structure, functions, components, and models of the internet and other computer networks. Principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination.	Prerequisites: None.		CLK	122
CSN150AB	Switching, Routing, and Wireless Essentials		Focus is on configuring switches and routers for use in small and medium-sized networks. Includes virtual local area networks (VLANs), VLAN trunking, inter-VLAN routing, spanning tree protocol (STP), EtherChannel, dynamic host configuration protocol (DHCP), first hop redundancy, local area network (LAN) and switch security, and static routing. Knowledge and skills needed to implement a	Prerequisites: None.		CLK	122

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			wireless local area network (WLAN) is also covered. Preparation for Cisco certification examination.				
CSN160AB	Enterprise Networking, Security, and Automation		Focus is on the configuration of routers and switches within small and medium size networks for advanced functionality including: open shortest path first (OSPF), network security, access control lists (ACLs), network address translation (NAT), wide area network (WAN) concepts, virtual private networks (VPNs), quality of service (QOS), network management, design, troubleshooting, virtualization, and automation. Preparation for Cisco certification examination.	Prerequisites: None.		CLK	122
CSN170	A+ Exam Prep: Computer Hardware Configuration and Support		Explore technical aspects of personal computers, including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis placed on hardware installation, maintenance, mobile devices, and hardware troubleshooting. Helps prepare students for the CompTIA A+ examinations.	Prerequisites: None.		CLK	122
CSN270	A+ Exam Prep: Operating System Configuration and Support		Explore advanced technical aspects of maintaining and servicing computers. Emphasis placed on operating system (OS) installation, maintenance, mobile devices, security, software troubleshooting, and on proper usage of tools, safety procedures, and professionalism. Helps	Prerequisites: None.		CLK	122

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			prepare students for the CompTIA A+ examinations.				
CSR108	Motor Vehicle Documentation Concerns		Vehicle titling considerations with emphasis on documentation procedures. Includes Department of Revenue policy and procedures and examination of title documents. Also covers trailer and damaged vehicle documentation as well as procedures for completing special vehicle titling	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
CSR109	Motor Vehicle Documentation Procedures		State motor vehicle documentation procedure. Use of computer based government workstation emphasized. Includes procedures for location and modification of customer and vehicle records	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
CSR118	Property Insurance Financial Security Customer Service		Financial security needs determinations procedures for the customer service representative. Referrals, value factors, and solutions applicable to providing opportunities for member financial security. Also includes company lines of business.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CSR119	Introduction to Homeowner Insurance Customer Service		Introduction to homeowner insurance components and coverage types for the customer service representative. Covers the home buying process as well as industry specific vocabulary and contracts.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR120	Homeowner Policy Issuance Customer Service		Examination of homeowner insurance components and policies for customer representative issuance procedures. Covers	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			dwelling types and characteristics as well as various systems and procedures for policy issuance. Also includes an introduction to old age homes procedures.				
CSR121	Homeowner Policy Servicing Customer Service		Homeowner policy servicing components for the customer service representative. Covers systems and procedures for completing policy modifications, cancellations, and declines. Also includes Earned Premium Location (EPL) and Probable Maximum Loss (PML) guidelines.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
CSR122	Introduction to Unit Owner Policy Customer Service		Unit owner policy components and procedures for the customer service representative. Covers various systems and procedures for issuance, modification, cancellation, and rewrite of policies. Also includes strategies for needs, determinations, and procedures for responding to member coverage inquiries.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
CSR123	Introduction to Rental Property Insurance Customer Service		Introduction to rental property insurance components and policies for the customer service representative. Covers various systems and procedures for issuance, modification, and cancellation of policies as well as declined accounts.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
CSR124	Renters Valuable Personal Property Customer Service I		Introduction to renters valuable personal property insurance procedures for the customer service representative. Covers types of policies, coverages, and limits as well as issuance and billing procedures. Also	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			includes member policy update procedures.				
CSR125	Renters Valuable Personal Property Customer Service II		Additional renters valuable personal property insurance procedures. Includes characteristics of valuable personal property coverage and limits as well as guidelines and procedures for dealing with collections. Also covers policy modifications, declines, and cancellations.	Prerequisites: A grade of C or better in CSR124.		Occ	L+L 2.0 3.0 3.0
CSR126	Automobile Insurance Customer Service Procedures		Automobile insurance industry customer service procedures. Covers roles and responsibility of a call center customer service consultant, including customer care expectations, call flow guidelines, insurance policy lifespan, and bill processing. Also covered workstation operation principles.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR130	Advocate-Driven Healthcare		Procedures for advocate-driven healthcare customer service representatives. Covers eligibility requirements, enrollment procedures, and Health Insurance Portability and Accountability Act of 1996 (HIPAA) compliance standards. Also includes healthcare services, products, and plans.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR136	Health Care Insurance: Claims I		Overview of health insurance, medical terminology, and various operating systems and applications. Also includes research of medical, outpatient, and inpatient claims.	Prerequisites: None.		Occ	L+L 4.0 6.0 6.0
CSR139	Introduction to Retail Pharmacy Customer Care		Introduction to the retail pharmacy program. Includes customer care responsibilities,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			confidentiality, and eligibility status in addition to various types of member inquiries. Also covers quality assurance and Federal and State laws governing controlled substances.				
CSR144	Prior Authorization Programs and Systems		Prior authorization programs and systems for federal employees. Covers Med-Ex, 'Buy and Bill' and Medical Formulary Exception (MFE) programs as well as identification and processes for compounds. Also covers the Clinical Authorization System (CAS) program organization and use, including clinical rationales, outcomes, inquiries, and non-covered Qsets.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR145	Prescription Prior Authorization I		Prescription prior authorization procedures for federal employees. Covers account access, documentation, and eligibility as well as claims process and claims adjudication. Computerized databases and automated phone systems emphasized.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CSR146	Prescription Prior Authorization II		Advanced prescription prior authorization procedures for federal employees. Usage of various computerized databases emphasized. Includes drug benefit management, drug limitation guidelines, standard allowance fill quantity, and prior authorization fill quantity. Approved and denied authorizations also covered in addition to grandfathered records and change in therapy procedures.	Prerequisites: A grade of C or better in CSR145.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CSR148	Health Care Insurance: Customer Service		Overview of customer service standards and objectives for health care insurance phone inquiries. Covers customer service solution processes, including first call resolution, account inquires, member eligibility and benefits. Health care regulations also covered.	Prerequisites: None.		Occ	L+L 4.0 6.0 6.0
CSR155	Retail Pharmacy Plans		Retail pharmacy benefit plan design. Includes types of plans, limitations, and drug coverage in addition to fulfillment requests. Also covers procedures for accessing accounts, responding to caller inquires, completing test claims, and steps for locating formulary alternatives.	Prerequisites: A grade of C or better in CSR139.		Occ	LEC 3.0 3.0 3.0
CSR156	Retail Pharmacy Procedures		Practical application of retail pharmacy customer care procedures. Includes procedures for accessing accounts, responding to eligibility issues, and completing customer requests. Also covers billing and payment procedures as well as the provision of non-technical web support.	Prerequisites: A grade of C or better in CSR139.		Occ	L+L 2.0 4.0 4.0
CSR157	Mail Order Pharmacy Procedures		Practical application of mail order pharmacy customer care procedures. Includes procedures for managing billing and payment inquiries as well as order status processes and prior authorizations.	Prerequisites: A grade of C or better in CSR155.		Occ	L+L 2.0 3.0 3.0
CSR160	Pharmacy Practice for the Customer Service Representative		Orientation to customer service responsibilities in pharmacy practice. Includes educational and licensure requirements as well as basic functions of the	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			pharmacy and the customer service representative				
CSR162	Pharmacy Operations for the Customer Service Representative		Customer service responsibilities in pharmacy operations. Includes procedures for prescription dispensing and drug distribution in the retail setting. Inventory control, packaging and storage, in addition to computer usage and third party operations	Prerequisites: A grade of C or better in CSR160.		Occ	LEC 3.0 3.0 3.0
CSR163	Telecommunications Industry Collections Customer Service		Introductory collections customer service strategies. Covers essential behaviors for effective customer support and professional interaction, in addition to knowledge of company products, services, roles and functions.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
CSR164	Telecommunications Industry Receivables Management		Receivables management procedures for customer services representatives in the telecommunications industry. Covers tools and systems for managing billing account modifications, prorations, and credit adjustments in addition to handling fraud claims. Also includes payment processing, options and restrictions, as well as distributions and various declined payments.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR165	Collections Customer Service		Practical application of telecommunications collections customer service procedures. Covers access to and navigation of tools and systems for completion of billing, payment and collections services.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
CSR166	Telecommunications Industry Collections		Telecommunications industry collection procedures and strategies. Includes policies and procedures	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			for collections, including the Fair Debt Collections Practice Act (FDCPA) and federal laws and regulations for compliance. Also covers collections schemes and payments options, as well as call escalation and miscellaneous billing procedures.				
CSR171	Customer Representative Web Design Products and Services		Introduction to web design products and services. Includes customer services for web design, branding, and hosting as well as various products available to business owners. Also covers domain ownership and security.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR172	Customer Representative Web Service Sales		Customer service account procedures for web service sales. Covers business specific services and products, and application to meeting customer needs. Also covers hosting and website design sales procedures as well as customer consultation techniques.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR173	Customer Service for Web Hosting		Introduction to web hosting products and customer services. Includes features and benefits of branding, productivity, presence, and marketing.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR174	Hosting Product Support Customer Service		Hosting product support customer service procedures. Covers databases, email solutions, and Content Management Systems (CMS) as well as business hosting. Also covers troubleshooting procedures including site latency.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR175	Web Hosting Account Customer Service		Account customer service for web hosting and domains. Includes new accounts, branding,	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and presence strategies and products, and their application to meeting customer needs. Also covers hosting and website design procedures as well as completion of a marketing consultation.				
CSR176	Customer Product Service Management for Web Hosting/Domain Registrar		Introduction to web hosting and domain registrar products and customer services. Includes features and benefits of branding, productivity, presence, and marketing.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CSR177	Customer Representative for Web Hosting/Domain Registrar Services		Customer service account procedures for web hosting and domain registrar product application. Includes new accounts, branding, and presence strategies and products, and their application to meeting customer needs. Also covers hosting and website design procedures as well as completion of a marketing consultation.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
CSR178	Customer Service Consultations and Troubleshooting Lab		Practical application of strategies and procedures for conducting customer consultations and troubleshooting.	Prerequisites: None.		Occ	LAB 1.0 2.0 2.0
CSR184	Business Technology in Customer Service		Foundational business technology for enhancing customer service. Includes the integration of technology into an effective workforce management solution. Covers Enterprise Resource Planning (ERP) in addition to Customer Relationship Management (CRM) and Business Intelligence (BI).	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR185	Insurance Industry Direct Sales Concepts		Overview of customer service direct sales concepts for the	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			insurance industry. Covers building relationships with customers in addition to systems used and strategies for effective communication and sales techniques. Also includes product knowledge, coverages, and procedures for closing the sale.	Corequisites: CSR186.			
CSR186	Insurance Industry Direct Sales Procedures		Practical application of direct sales basics. Covers product knowledge, sales procedures, and systems in addition to effective communication techniques.	Prerequisites: None. Corequisites: CSR185.		Occ	L+L 2.0 4.0 4.0
CSR195	Customer Service Representative Sales and Marketing		Introduction to sales and marketing strategies for the customer service representative. Includes the sales and negotiation processes as well as behavioral styles and demographics of customers. Also covers types of markets, organizational structure, and elements of a marketing plan.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
CSR196	Call Center Customer Service		Introduction to practical application for call center representatives. Covers the role of call center representatives and skills and behaviors necessary for successful and effective call flow and completion of inbound calls. Also includes procedures for customer authentication, billing, payments, and claims loss reports as well as de-escalation.	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 5.0 5.0
CSR197	Customer Service Representative Business Practices		Introduction to business practices for the customer service representative. Includes organization types and structures as well as essential business communication	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			techniques and foundational skills. Also covers professional telephone techniques.				
CSR200	Automobile Representative Customer Services		Automobile representative customer service responsibilities. Includes overview of insurance industry terminology and contracts as well as need determination. Also covers privacy and security issues in addition to relationship management strategies.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CSR201	Web-Based Hosting Customer Service		Web-based hosting customer service. Includes resources, tools, and services for setup, maintenance, and troubleshooting.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
CSR202	Automobile Insurance Policy Customer Service		Front-line customer service procedures for automobile insurance policies. Emphasis upon information associated with completing automobile insurance policy changes. Covers policy issue and policy status change operations, endorsements, policy cancellation, and vehicle ownership concerns. Includes title lien holder issues and model call flow identification and demonstration.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
CSR203	Productivity Customer Service		Web-based productivity customer service. Includes tools and resources for managing productivity as well as troubleshooting procedures.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
CSR204	Auto Insurance Quotes and Underwriting		Automobile insurance member services representative operating procedures. Procedures for providing auto insurance quotes and completing payments. Covers tools for underwriting, including	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			risk factors and rate determination. Also includes account research techniques and fundamental need-based sales principles.				
CSR206	Special Lines Customer Service Procedures		Introduction to special lines customer service procedures. Covers types of coverage, discounts, and eligibility for motorcycle, recreational vehicles, and watercraft. Includes procedures for quoting and use of state-specific guidelines and procedures.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0
CSR207	Automobile Policy Adjustment		Emphasis upon policy explanation and adjustment. Covers membership flow-thru criteria, quality customer service information, and in-depth on-line resource instrument review. Also includes consultative selling practice and the observation of acting member service representatives.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
CSR208	House and Home Customer Service		Introduction to house and home coverage. Includes homeowner products and procedures for completing customer inquiries and cross-selling. Also covers an introduction to renter insurance.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CSR209	State Specific Customer Service		Introduction to state specific variations in coverage and service. Covers product knowledge, guidelines and processes for specific states in both auto and property lines.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CSR211	Auto Insurance Quotes		Procedures for providing auto insurance quotes and completing various payments. Covers tools for investigating rate changes as well as procedures for modifying account vehicles and	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			driver information. Also includes account research techniques and reinstatement procedures.				
CSR212	Automobile Insurance Operations I		Automobile insurance member services representative operating procedures. Emphasis upon explanation of payment and rate information, the provision of written correspondence, and file information completion. Covers representative underwriting observation, fundamental need based sales principles, and phone system usage.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CSR213	Automobile Insurance Operations II		Auto insurance account operations. Includes the format and use of vehicle identification numbers (VIN) and the impact of regulation in the insurance industry. Also covers policy procedures including liability, exclusions, and credits. Review of the billing process and statements also covered.	Prerequisites: A grade of C or better in CSR212.		Occ	LEC 2.0 2.0 2.0
CSR214	Automobile Insurance Operations Lab		Practical application of auto insurance member services operational procedures. Includes use of the direct sales system to complete account navigation in addition to modification and billing procedures. Emphasis on effective communication skills, information gathering, and sales techniques.	Prerequisites: A grade of C or better in CSR213.		Occ	LAB 1.0 2.0 2.0
CSR215	Digital Telephone Customer Service		Digital telephone customer service provisions. Emphasis on the establishment and alteration of digital phone service. Covers phone number assignation, ancillary service provision, and	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			public directory phone number listing information				
CSR219	Disconnects and Transfers		Procedures for completing disconnects and transfers of service using the Integrated Communications Operations Management System. Includes restrictions, documentation, and scheduling issues	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CSR220	Sales and Retention		Practical application for call center representatives. Covers skills and behaviors necessary for successful and effective completion of inbound sales and retention calls.	Prerequisites: Permission of Department or Division.		Occ	LAB 2.0 6.0 6.0
CSR224	Communications Industry Billing Practices		Provision of billing services to digital telecommunications industry customers. Covers database billing issues, billing policy concerns, payment acceptance, and adjustments processing.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CSR225	Digital Telecommunications Customer Service		Principles for the provision of digital telecommunications industry customer service. Emphasis upon the initiation of services to customers. Covers deposit collection, credit check performance, and Internet connection procedures. Includes digital television upgrade and pay-per-view provision information.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR226	Digital Telecommunications Customer Interaction		Digital telecommunications industry customer service communication techniques. Emphasis on active listening and questioning strategies in the identification of digital telecommunications customer needs. Covers negotiation and	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			customer valuation techniques				
CSR228	Telecommunications Database Navigation		Telecommunications database navigation procedures. Emphasis on the documentation of customer service activities in a telecommunications database. Covers code and notation interpretation, function key usage, and work order data entry.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
CSR232	Auto Insurance and Claims Overview		Overview of auto insurance coverage, including claims and claims handling. Emphasis on liability, uninsured and underinsured motorist, medical and physical damage	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CSR233	Auto Damage Appraisal		Overview of various components of the automobile. Emphasis on types of damage that may require a claims report. Covers appraisal process, total losses, and vehicle design platforms	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CSR242	Auto Insurance Loss Reports		Automobile insurance loss reports. Determination of fault and claims processing emphasized. Various types of damage covered as well as claim correspondence and compliance policies.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CSR243	Auto Insurance Loss Reports Lab		Practical application of processing of automobile insurance accident and loss reports. Emphasis on customer service while processing claims reports. Usage of computerized insurance system included.	Prerequisites: A grade of C or better in CSR242.		Occ	LAB 2.0 6.0 6.0
CSR280AB	Customer Service Internship		Customer service experience in business or industry. Eighty hours of designated work per credit. Maximum of eight credits allowed	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CTE200	Career and Technical Education: Principles, Philosophy and Student Organizations		Examination of the role of career and technical educational (CTE) pathways as they relate to workforce development. Overview of career and technical student organizations (CTSO), occupational clusters, development and role of career and technical education, philosophy, history and impact of federal funding revenue streams, and career and technical delivery system.	Prerequisites: None.	CTE200 coursework intended for Arizona Department of Education Provisionally certified Career and Technical Education instructors.	Occ	LEC 3.0 3.0 3.0
CTE210	Career and Technical Education: Teaching Methods and Curriculum Development		Overview and practical application of teaching methodology and curriculum development for secondary education career and technical education teachers. Teaching strategies and learning styles covered. Curriculum design/mapping, lesson objectives, time management skills, teaching resources, and Arizona Department of Education Career and Technical Curriculum Framework Standards also included.	Prerequisites: None.	CTE210 coursework is intended for Arizona Department of Education Provisionally certified Career and Technical Education instructors.	Occ	LEC 3.0 3.0 3.0
CTE220	Career and Technical Education: Classroom Management and Lab Safety		Classroom management techniques. Classroom discipline models, student behavior and misbehavior, group dynamics, student self-motivation, and learning styles covered. Essentials of lab safety issues, including regulatory agencies and policies. State Board of Education Professional Teaching Standards emphasized.	Prerequisites: None.	CTE220 coursework intended for Arizona Department of Education Provisionally certified Career and Technical Education instructors.	Occ	LEC 4.0 4.0 4.0
CTR101	Court Reporting: Machine Shorthand Theory Block I		Basic court reporting machine shorthand theory.	Prerequisites: (45 wpm keyboarding or permission of	Transcript(s) of high school graduation OR	Occ	L+L 6.0 10.0 10.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Department or Division) and placement into ENG101 or ENG107 district placement exam OR permission of Department or Division.	equivalent must be on file in the Admissions and Records Office.		
CTR102	Court Reporting: Machine Shorthand Theory Block II		Introduction of court briefs and phrases.	Prerequisites: A grade of C or better in CTR101 or permission of Department or Division or Program Director.		Occ	L+L 6.0 10.0 10.0
CTR105	Court Reporting: Punctuation and Grammar		Application of the rules of punctuation, grammar, spelling, and capitalization to sentences, paragraphs, and transcripts through systematic testing and/or projects.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
CTR106	Court Reporting: Legal Terminology		Civil/criminal law, the judicial system, legal terminologies, and researching legal citations.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
CTR107	Court Reporting: Medical Terminology		Body systems and functions. Psychological and physical diseases and drugs. Methods of researching medical information.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
CTR197	Court Reporting Lab		Court reporting practice/transcription as assigned under supervision.	Prerequisites: None. Corequisites: CTR101.		Occ	LAB 1.0 5.0 0.0
CTR209	Judicial Procedures for Court Reporting		Professional procedures, techniques, ethics, and introduction to video applications for judicial court reporters. Proper transcription methods and correct formatting styles for transcript production.	Prerequisites: A grade of C or better in CTR102 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
CTR211	Judicial Internship		A minimum of 50 hours of participation in an actual courtroom	Prerequisites: A grade of C or better in		Occ	LAB 1.0 4.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			deposition setting. Transcript production required.	CTR209 and student must pass one (1) 200 words per minute Q/A test with speed and accuracy to meet court reporting industry standards or permission of Program Director.			
CTR215	Computer-Aided Transcription		Computer terminology, trouble-shooting and basic maintenance of a computer-aided transcription (CAT) system. Court reporting system set-up, maintenance and operation. Realtime system applications in specific environments. Production of transcripts from dictation and with a computer-aided transcription system.	Prerequisites: A grade of C or better in (CTR101 and BPC101AA) or permission of Department or Division.		Occ	L+L 3.0 3.0 3.0
CTR251	Court Reporting Speed Building Block III		Instruction, dictation, and readback in speeds of 80-100 wpm in Literary Material; 100-120 wpm in Jury Charge Material; 120-140 wpm in Question/Answer Testimony Material with a minimum of 95% accuracy.	Prerequisites: A grade of C or better in CTR102 or permission of Department or Division.		Occ	L+L 14.0 20.0 20.0
CTR251AA	Court Reporting Skill Building: Block III Literary Material		Development of speed and accuracy skills with dictation, readback, and transcription in literary material. Speed requirements of 80 and 100 words per minute (wpm) with a speed and accuracy to meet court reporting industry standards.	Prerequisites: A grade of C or better in CTR102 or permission of Program Director. Corequisites: (CTR251AB or CTR252AB or CTR253AB) and (CTR251AC or	Student must demonstrate completion of required speed in each module with a grade of C or better before enrolling in the next level.	Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				CTR252AC or CTR253AC).			
CTR251AB	Court Reporting Skill Building: Block III Jury Charge Material		Development of speed and accuracy skills with dictation, readback, and transcription in jury charge material. Speed requirements of 100 and 120 words per minute (wpm) with speed and accuracy to meet court reporting industry standards.	Prerequisites: A grade of C or better in CTR102 or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AC or CTR252AC or CTR253AC).	Student must demonstrate completion of required speed in each module with a grade of C or better before enrolling in the next level.	Occ	L+L 4.0 4.0 4.0
CTR251AC	Court Reporting Skill Building: Block III Question/Answer Testimony Material		Development of speed and accuracy skills with dictation, readback, and transcription in question/answer material. Speed requirements of 120 and 140 words per minute (wpm) with speed and accuracy to meet court reporting industry standards.	Prerequisites: A grade of C or better in CTR102 or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AB or CTR252AB or CTR253AB).	Student must demonstrate completion of required speed in each module with a grade of C or better before enrolling in the next level.	Occ	L+L 6.0 12.0 12.0
CTR252	Court Reporting Speed Building Block IV		Instruction, dictation, and readback in speeds of 120-140 wpm in Literary Material; 140-160 wpm in Jury Charge Material; 160-180 wpm in Question/Answer Testimony Material with a minimum of 95% accuracy.	Prerequisites: A grade of C or better in CTR251 or permission of Department or Division.		Occ	L+L 14.0 20.0 20.0
CTR252AA	Court Reporting Skill Building: Block IV Literary Material		Development of speed and accuracy skills with dictation, readback, and transcription in literary material. Speed	Prerequisites: A grade of C or better in CTR251AA or permission	Student must demonstrate completion	Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			requirements of 120 and 140 words per minute (wpm) with speed and accuracy to meet court reporting industry standards.	of Program Director. Corequisites: (CTR251AB or CTR252AB or CTR253AB) and (CTR251AC or CTR252AC or CTR253AC).	of required speed in each module with a grade of C or better before enrolling in the next level.		
CTR252AB	Court Reporting Skill Building: Block IV Jury Charge Material		Development of speed and accuracy skills with dictation, readback, and transcription in jury charge material. Speed requirements of 140 and 160 words per minute (wpm) with speed and accuracy to meet court reporting industry standards.	Prerequisites: A grade of C or better in CTR251AB or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AC or CTR252AC or CTR253AC).	Student must demonstrate completion of required speed in each module with a grade of C or better before enrolling in the next level.	Occ	L+L 4.0 4.0 4.0
CTR252AC	Court Reporting Skill Building: Block IV Question/Answer Testimony Material		Development of speed and accuracy skills with dictation, readback, and transcription in question/answer material. Speed requirements of 160 and 180 words per minute (wpm) with speed and accuracy to meet court reporting industry standards.	Prerequisites: A grade of C or better in CTR251AC or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AB or CTR252AB or CTR253AB).	Student must demonstrate completion of required speed in each module with a grade of C or better before enrolling in the next level.	Occ	L+L 6.0 12.0 12.0
CTR253	Court Reporting Speed Building Block V		Instruction, dictation, and readback in speeds of 160-180 wpm in Literary Material; 180-200 wpm	Prerequisites: A grade of C or better in CTR252 or		Occ	L+L 14.0 20.0 20.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			in Jury Charge Material; 200-225 wpm in Question/Answer Testimony Material with a minimum of 95% accuracy.	permission of Department or Division.			
CTR253AA	Court Reporting Skill Building: Block V Literary Material		Development of speed and accuracy skills with dictation, readback and transcription in literary materials. Speed requirements 160 and 180 words per minute (wpm) with speed and accuracy to meet court reporting industry standards.	Prerequisites: A grade of C or better in CTR252AA or permission of Program Director. Corequisites: (CTR251AB or CTR252AB or CTR253AB) and (CTR251AC or CTR252AC or CTR253AC).		Occ	L+L 4.0 4.0 4.0
CTR253AB	Court Reporting Skill Building: Block V Jury Charge Material		Development of speed and accuracy skills with dictation, readback and transcription in jury charge materials. Speed requirements 180 and 200 words per minute (wpm) with speed and accuracy to meet court reporting industry standards.	Prerequisites: A grade of C or better in CTR252AB or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AC or CTR252AC or CTR253AC).		Occ	L+L 4.0 4.0 4.0
CTR253AC	Court Reporting Skill Building: Block V Question/Answer Testimony Material		Development of speed and accuracy skills with dictation, readback, and transcription in question/answer material. Speed requirements of 200 and 225 words per minute (wpm) with speed and accuracy to meet court reporting industry standards.	Prerequisites: A grade of C or better in CTR252AC or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or		Occ	L+L 6.0 12.0 12.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				CTR253AA) and (CTR251AB or CTR252AB or CTR253AB).			
CTR253AD	Court Reporting Skill Building Review		Progression and retention of speed and accuracy skills with dictation, readback, and transcription in literary, jury charge, and question/answer material.	Prerequisites: A grade of C or better in CTR253AA, or CTR253AB, or CTR253AC, or permission of Program Director.	CTR253AD may be repeated five (5) times for a total of fifteen (15) credits.	Occ	LAB 3.0 20.0 0.0
CTR271	Scoping		Ability to read machine shorthand steno notes and employ Computer-Aided Transcript (CAT) software to edit/correct court reporters' files with an emphasis on correct transcript formatting structure. Concentration on grammar, punctuation, proofreading skills, and accuracy to produce transcripts, including but not limited to trials, depositions, conferences, arbitrations, and other administrative hearings.	Prerequisites: A grade of C or better in (BPC101AA, CTR101, and CTR215) or permission of Department or Division.		Occ	L+L 2.0 2.0 2.0
CTR272	Transcription		Machine shorthand transcription, realtime writing from audio and/or video files, with an emphasis on correct transcript formatting structure. Concentration on dictation, transcription, proofreading skills and accuracy. Computerized machine shorthand in conjunction with specialized Computer-Aided Transcription (CAT) software to generate transcripts that would include medical, interviews, judicial	Prerequisites: A grade of C or better in (BPC101AA, CTR101, CTR215, and CTR271) or permission of Department or Division.		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			hearings, dissertations, and meetings.				
CTR290	Registered Professional Reporter Preparation		Live dictation practice to increase speed in any machine shorthand system in preparation for the national Court Reporters Association Registered Professional Reporter (RPR) Exam.	Prerequisites: One year of machine shorthand.		Occ	LEC 2.0 2.0 2.0
CTR291	Extended Machine Shorthand Practice		Dictation and testing in Literary, Jury Charge, and Question/Answer testimony material at incremental speeds for the purpose of the student to increase machine shorthand speed and accuracy. Readback of paper or computerized notes.	Prerequisites: Permission of Program Director or Instructor.	CTR291 may be repeated for credit.	Occ	LAB 2.0 2.0 2.0
CTT110	Introduction to Caterpillar Service Industry		Introduction to the Caterpillar organization and product line, basic shop safety, and shop operation. Includes computer operations and service information systems.	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 5.0 5.0
CTT111	Caterpillar Engine Fundamentals		Introduction to diesel engine theory and service procedures. Focuses on Caterpillar engine systems and applications.	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 4.0 8.0 8.0
CTT112	Hydraulic Fundamentals		Hydraulic fundamentals, including functions of valves used in Caterpillar hydraulic systems, functions of vane pumps, gear pumps, and piston pumps, and assembly and disassembly of hydraulic components. Includes ISO hydraulic symbols.	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 3.0 5.0 5.0
CTT113	Fuel Systems		Introduction to fuel systems used in Caterpillar engines. Covers fuel selection, calibrations, and nozzle testing procedures, governor operation, and hydraulic fuel ratio controls. Includes 1.1	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and 1.2 MUI and HEUI, EUI, Nippondenso, and Zexel fuel systems.				
CTT114	Basic Electrical Fundamentals		Basic electrical and electronic principles used by the technician to diagnose and repair electrical systems in Caterpillar machines.	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 3.0 5.0 5.0
CTT115	Air Conditioning Fundamentals		Introduction to principles, systems, components, and servicing of air conditioning systems used in Caterpillar products.	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 3.0 5.0 5.0
CTT116	Power Train I		Basic components and operations of power train systems used in Caterpillar machines. Covers basic components, clutches, manual shift transmissions, and power shift transmissions.	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 3.0 5.0 5.0
CTT117	Machine Hydraulic Systems		Operation, testing, and adjustment procedures for pilot operated hydraulic systems, load sensing pressure compensated (LSPC) hydraulic systems, electro-hydraulic systems, and hydrostatic systems. Components of hydraulic systems and oil flow through the system.	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 3.0 5.0 5.0
CTT118	Caterpillar Dealer Internship I		Application of skills and knowledge gained in CTT coursework in an internship in a dealership environment. Develops professional skills required of Caterpillar service technician. Provides experience in tool usage, shop safety, connective devices, computers and service information systems, air intake and exhaust systems, lubrication systems, cooling systems, fuel systems, engines, and electrical	Prerequisites: A grade of C or better in CTT110.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			systems. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator.				
CTT119	Caterpillar Dealer Internship II		Application of skills and knowledge gained in CTT coursework in an internship in a dealership environment. Develops professional skills required of Caterpillar service technician. Provides experience in hydraulics, pumps, valves, cylinders, and pilot-operated implement system. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator.	Prerequisites: A grade of C or better in CTT110.		Occ	LAB 3.0 3.0 0.0
CTT200	Power Train II		Methods of transferring power. Hydraulic-driven machines and mechanical power train components, including differentials, brakes, final drives, and undercarriage.	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 3.0 5.0 5.0
CTT201	Machine Electronics		Introduction to machine electronic systems and diagnostic tooling used to diagnose and repair the complex electrical/electronic systems installed in Caterpillar machines.	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 3.0 5.0 5.0
CTT202	Engine Diagnostics and Repair		In-depth study of engine diagnostics and repair techniques used to troubleshoot and repair engine problems in Caterpillar machines. Selection and use of Caterpillar diagnostic tools. Covers oil, air, cooling, and fuel systems.	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 3.0 5.0 5.0
CTT203	Machine Diagnostics		Failure analysis, troubleshooting logic, and diagnostic tooling	Prerequisites: A grade of C		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and processes used to diagnose and repair the complex systems installed in Caterpillar machines. Use of Caterpillar's Applied Failure Analysis. Introduction to Service Technician Workbench (STW) applications.	or better in CTT110.			
CTT204	Machine Specific Systems		Introduction to machine-specific systems. Machines covered include compact construction equipment, agricultural combines and challengers, 325B Excavator, off-highway trucks, wheel tractor scrapers, and motor graders.	Prerequisites: A grade of C or better in CTT110.		Occ	L+L 3.0 5.0 5.0
CTT205	Caterpillar Dealer Internship III		Application of skills and knowledge gained in CTT coursework in an internship in a dealership environment. Develops professional skills required of Caterpillar service technician. Provides experience in air conditioning systems, power trains, couplings, transmissions, and hydraulic systems. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator.	Prerequisites: A grade of C or better in CTT110.		Occ	LAB 3.0 3.0 0.0
CTT206	Caterpillar Dealer Internship IV		Application of skills and knowledge gained in CTT coursework in an internship in a dealership environment. Develops professional skills required of Caterpillar service technician. Provides experience in lubrication systems, engine air induction systems, cooling systems, fuel systems, timing systems, failure analysis, diagnosis, and	Prerequisites: A grade of C or better in CTT110.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			troubleshooting of specific types of Caterpillar equipment. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator.				
CUL101	Culinary Basics		Theory and practice of basic elements of culinary arts fundamentals. Emphasis on safety, sanitation and uniform requirements, culinary terminology, basic nutritional guidelines, equipment needs and usage, standard measurements, knife selection and care, basic knife cuts, and fruit and vegetable identification and preparation.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CUL102	Hot Foods		Cooking techniques and preparation of varied meat, fish and poultry items. Theory and practice of production of stocks, sauces, and soups. Study of butchering, yields, purchasing and grade classification.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CUL103	Breakfast and Cold Foods		Cooking techniques and preparation of breakfast items, salads, sandwiches, and dressings. Theory and practice of production of egg, pasta, cheeses, and fruit dishes, canapes and hors d'oeuvre creations. Study of lettuces, fruits, grains, cheeses and dressings as components of salads and sandwiches.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CUL104	Bakery and Pastry		Provides a study of cooking techniques and preparation methods for cakes, pies, cookies and simple desserts as well as production of doughs	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and breads. Includes preparation of various bakery sauces and toppings, uses of chocolate, and appropriate presentation methods for various types of desserts.				
CUL105	Principles of Professional Cooking		Introductory principles and skills for professional cooking. Introduces organizational structure of kitchen staff in different types of kitchens. Includes basic principles of safety and sanitation, equipment and utensil use, French cooking terms, recipe use, measuring techniques, identification and use of seasoning agents, and basic cooking methods applied to stocks, sauces and soups, vegetables, starches, entrees, and eggs. Emphasis on practical experiences in a commercial kitchen.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
CUL107	Principles and Techniques of Garde Manger		Prepares students for employment in garde manger pantry positions in restaurants and resorts. Includes costing out and ordering food products; food and safety factors; preparing and garnishing pantry product. Emphasis on classical food presentation.	Prerequisites: A grade of C or better in CUL105 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
CUL109	Menu Planning Development	HRM102	Principles and techniques of menu planning for food service operations where food is served in quantity; includes applications for health care institutions, commercial kitchens, school cafeterias, and industrial facilities.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CUL111	Purchasing for Food Service Systems		Food purchasing for institutions: cost factors, quality standards,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			purchasing practices and controls.				
CUL113	Commercial Baking Techniques		Principles and techniques for preparation, storage, and serving of bakery products. Includes breads, cakes, pies, pastry, cookies, fillings, and icings. Emphasis on practical experiences in a commercial bakery.	Prerequisites: None.	Students must have or obtain a current Maricopa County Arizona Food Handler's Certificate prior to food handling activities to successfully participate in the course. Recommend students complete this prior to the start of the course.	Occ	L+L 3.0 5.0 5.0
CUL115	Food Service Sanitation, Safety and Stewarding		Focuses on the theory and practice of food service safety and sanitation. Emphasis on understanding and applying the Hazard Analysis Critical Control Points (HACCP) concept. Reviews legal elements of food service sanitation based on requirements and recommendations of Maricopa County Health Department. Focuses on stewarding as an important kitchen support service with emphasis on appropriate practices and principles of receiving food and product rotation	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CUL117	Catering - Planning and Production		Focuses on the basic steps of the catering process in a commercial food setting. Includes a review of safety and sanitation principles. Emphasizes practical experiences in booking and record keeping,	Prerequisites: A grade of C or better in CUL105.		Occ	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			planning, ordering, production, and service set-up and break-down for both in-house and off-premise catered events.				
CUL119	Baking Theory and Retail Operations		Baking principles to include detailed study of ingredients, heat transfer, and recipe conversions. Basic business operations for a retail bakery including bakery product line and floor plan design.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CUL120	Food Costing, Purchasing and Inventory Control		Basic skills necessary to understand and utilize cost controls. Focus on measurements, recipe costing and yield analysis. Application of systems and practices for efficient food purchasing, storage, production, budgeting and inventory.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
CUL121	Principles of Food and Beverage Service		Qualities and skills necessary for successful food and beverage service. Includes room planning and setup, duties of service staff, types of service, customer relations, dining room etiquette, and cash management.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CUL123	Customer Service Practicum		Professional food and beverage experience in a commercial food service operation. Focuses on food server, host/hostess, cashier, and busperson. Includes beverage preparation, application of sanitation, and safety concepts. Stresses professionalism in service, demeanor, and appearance.	Prerequisites: A grade of C or better in FON104.		Occ	L+L 4.0 11.0 11.0
CUL123AA	Customer Service Practicum		Professional food and beverage experience in a commercial food service operation. Focuses on food server, host/hostess cashier, busperson. Includes	Prerequisites: A grade of C or better in FON104 and Permission of Department or Division.	CUL123AA may be repeated for a total of four (4) credits.	Occ	L+L 1.0 4.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			beverage preparation, application of sanitation and safety concepts. Stresses professionalism in service, demeanor, and appearance.				
CUL123AB	Customer Service Practicum		Professional food and beverage experience in a commercial food service operation. Focuses on food server, host/hostess cashier, bus person. Includes beverage preparation, application of sanitation and safety concepts. Stresses professionalism in service, demeanor, and appearance.	Prerequisites: None.		Occ	L+L 2.0 5.0 5.0
CUL127	Classical Desserts		Advanced principles and techniques in commercial baking and dessert preparation. Focus on fine pastries with European flair and on desserts served in better hotels, restaurants, and resorts. Preparation of macaroons, tarts, puff pastries, specialty cakes, and desserts such as Bavarian creams, mousses, custards, souffles, crepe desserts, and flammeries. Preparation and use of sauces, techniques for using nuts and chocolate, and exploration of new recipes.	Prerequisites: A grade of C or better in CUL113, or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
CUL130	Savory Foods I		Studies all facets of hot foods with an emphasis on French and regional cooking techniques; including vegetable preparation, stocks, sauces, and soups. Reviews ingredients, production and plating techniques that are unique to contemporary, international and regional cuisines.	Prerequisites: None.		Occ	L+L 6.0 7.5 7.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CUL131	Customer Services in Food Service Systems		Customer service principles and procedures in commercial food service operations. Focuses on experiences in bussing, waiter/waitressing, hosting, and beverage preparation in a coffee shop or at catered events. Emphasis on professionalism. Includes principles of safety and sanitation.	Prerequisites: None.		Occ	LAB 1.0 3.0 3.0
CUL137	Specialty Breads and Breakfast Pastry		The preparation of classical and artisan breads using advanced production techniques and skills. Classic breakfast pastry, with the production of laminated doughs, sweet doughs, and rich yeast doughs to include Danish, croissant, puff pastry, brioche, and other international classics. Completion of edible centerpieces made out of various styles of bread.	Prerequisites: None.	CUL137 students must have or obtain a current Maricopa County Arizona Food Handler's Certificate prior to food handling activities to successfully participate in the course. Recommend students complete this prior to the start of the course.	Occ	L+L 3.0 5.0 5.0
CUL140	Culinary Principles and Kitchen Management I		Historical background of the culinary profession and food components. Overview of kitchen administration and responsibilities. Includes food history, terminology, tools and equipment, food preparation, tasting and sensory evaluation, stocks and sauces, herbs and spices, chocolates, vegetables, fruits, pasta, grains and cheeses	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CUL145	Banquet Food and Beverage Service Externship		Waiter/waitress serving experiences in a banquet setting; includes instructor-assisted placement, orientation, job seeking skills, and working a minimum of four banquets or twenty-four hours in banquet service. Professional appearance and attire required.	Prerequisites: A grade of C or better in CUL121, CUL123, and FON104.		Occ	LAB 1.0 5.0 0.0
CUL150	Garde Manger I		Provides a foundation in Garde Manger. Includes equipment, sanitation and safety, production, salads, emulsified and non-emulsified dressings, sandwiches, cold sauces, salad condiments, knife skills, cleaning of salad greens and spice and herb identification. Studies culinary terms and presentation techniques. Teaches cooking techniques such as poaching, sauteing, and grilling in the context of Garde Manger work.	Prerequisites: None.		Occ	L+L 2.0 3.5 3.5
CUL160	Bakery I		Theory and practice of operating a bakery or pastry shop in a hotel or restaurant kitchen. Provides experience in planning, ordering, scheduling and producing fine French and American pastries and baked goods. Emphasis on rapid, high-quality hand production of doughs, creams, fillings, cookies and breads.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
CUL170	Dining Room Operations I		Focuses on theory and practice of operating a casual dining room; includes set-up and clean-up, food and beverage service, proper etiquette, point-of-sale operation and presenting guest checks. Emphasis on service techniques,	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			including buffet and banquet set-ups, and customer accommodations.				
CUL180	Food In History		Focuses on the history of foodstuffs, the story of cuisine and the social history of eating. Includes the relationship between people and what they eat, between particular foods and social behavior, and between dietary habits, customs and methods of cooking	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CUL190	Catering Operations I		Studies theory and practice of planning and executing catering functions; includes initial customer contact and follow-up, room set-up and scheduling, menu and incidental planning event execution and breakdown, billing and post-event follow up	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CUL201	International Cuisine		Gourmet international food preparation applied to restaurants. Review principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to selected international cultures. Emphasis on practical cooking experiences in a restaurant kitchen. Cultures to include, but not limited to: Italian, German, Oriental, Middle Eastern, and Spanish.	Prerequisites: A grade of C or better in CUL105 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
CUL203	American Regional Cuisine		American regional food preparation applied to restaurants. Review principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to selected American	Prerequisites: A grade of C or better in CUL105 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			regions. Emphasis on practical cooking experiences in a restaurant setting. American regions to include, but not limited to: Southern, Cajun/Creole, New England, Mid-West, and Pacific Coast.				
CUL205	French Cuisine		Principles of French cooking applied to restaurant kitchens. Includes review of safety and sanitation principles, orientation to French culture, use of French terms and recipes, and reading French menus. Emphasis on practical experiences in preparing French meals in a restaurant kitchen. Introduces preparation of appetizers, hors-d'oeuvres, charcuterie items, pastries, and desserts.	Prerequisites: A grade of C or better in CUL105 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
CUL207	Pacific Rim Cuisine		Local and gourmet Pacific Rim food preparation applied to restaurants. Overview of principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to Pacific Rim cultures. Emphasis on practical cooking experiences in a restaurant kitchen. Cultures to include, but not limited to Chinese, Japanese, Thai, Korean, and South Pacific islands.	Prerequisites: A grade of "C" or better in CUL105.		Occ	L+L 3.0 5.0 5.0
CUL209	Italian Cuisine		Principles of Italian cooking applied to restaurant kitchens. Includes review of safety and sanitation principles, orientation to Italian culture, use of Italian terms and recipes, and reading Italian menus.	Prerequisites: A grade of "C" or better in CUL105.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Emphasis on practical experiences in preparing Italian meals in a restaurant kitchen. Introduces preparation of appetizers, entrees, salads, fresh pasta items, pastries, and desserts.				
CUL210	Menu Planning and Facilities Design		Principles and techniques of menu planning and restaurant design for food service operations. Includes applications for health care institutions, commercial kitchens, and industrial facilities. Studies building codes and examines the relationships among equipment, staff and customers in the design of a facility	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CUL211	Professional Cooking Practicum		Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens.	Prerequisites: A grade of C or better in (CUL105 and FON104) or permission of Department or Division.		Occ	L+L 7.0 19.0 19.0
CUL211AA	Professional Cooking Practicum		Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens.	Prerequisites: A grade of C or better in CUL105, FON104, and permission of Department or Division.		Occ	L+L 1.0 3.0 0.0
CUL211BA	Professional Cooking Practicum		Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups,	Prerequisites: A grade of C or better in (CUL105 and FON104) or permission of		Occ	L+L 4.0 11.0 11.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			stocks, sauces, entrees, starches, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens.	Department or Division. Corequisites: CUL211BB.			
CUL211BB	Professional Cooking Practicum		Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens.	Prerequisites: A grade of C or better in (CUL105 and FON104) or permission of Department or Division. Corequisites: CUL211BA.		Occ	L+L 3.0 6.0 6.0
CUL213	Buffet Catering		Focuses on the basic steps of the catering process in a commercial food setting. Includes an overview of safety and sanitation principles. Emphasizes practical experiences in booking and record keeping, function planning, ordering, production, and service set-up and breakdown for both in-house and off-premise catered events.	Prerequisites: A grade of C or better in CUL105 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
CUL215	Advanced Pastry Arts		Advanced pastry arts and decorative work as applied to showpieces and special occasion cakes. Includes sugar work such as pulled, blown, and poured as well as the use of tempered and modeling chocolate. Design and execution of a three-tier wedding cake as well as work on a special occasion and team wedding cake using gum paste, pastillage, chocolate, or marzipan. Includes desserts for special diets and spa desserts.	Prerequisites: A grade of C or better in CUL113 or permission of Program Director.	CUL215 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CUL217	Wedding Cake Production		Basic and advanced execution for special occasion, wedding, and groom's cakes to include initial design work, baking, icing, and advanced finishing techniques to include the use of fondant and gum paste. Enhancement of cakes to include basic sugar, pastillage, and chocolate decoration.	Prerequisites: A grade of C or better in CUL113 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
CUL219	Professional Pastry Techniques		Advanced production techniques for plated desserts, frozen desserts, modern and classical gateaux, petits fours, and chocolates.	Prerequisites: A grade of C or better in CUL113 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
CUL220	Food Service Nutrition		Study of basic nutrition concepts with an emphasis on the nutritional concerns of restaurants and other types of food service operations. Focuses on nutrients in foods, the relationships to other nutrients and the planning of well-balanced menus throughout the life cycle	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
CUL223	Food Service Management		Administrative procedures and personnel relationships: Management of materials costs, record keeping and legal aspects of food and beverage service operations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
CUL225	Supervisory Functions in Food Service		Principles and techniques of supervision applied to food service workers. Includes roles and responsibilities of a food service supervisor, basic theories of management, line staffing functions, basic concepts of communication, motivation techniques, problem-solving, labor relations and laws,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			performance evaluation and basic record keeping functions in food service settings.				
CUL230	Savory Foods II		Hot food product utilization, preparation and display for contemporary, continental kitchen. Focuses on classical preparation skills with an emphasis on contemporary and international flavors in food production. Students also practice organization, communication, teamwork and plating skills. Food production includes the creation of appetizers, hors d'oeuvres, salads, and salad dressings; the use of grains and legumes; the production of charcuterie; and the creation of display pieces in both catering and kitchen environments.	Prerequisites: A grade of C or better in CUL130.		Occ	L+L 6.0 7.0 7.0
CUL231AA	Culinary Studies Internship		Work experience preparing hot and cold foods in a commercial food service operation, experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables. Five (5) hours of work weekly. Supervision and evaluation by an internship coordinator.	Prerequisites: A grade of C or better in CUL105, FON104, and permission of Department or Division.	CUL231AA may be repeated for a total of seven (7) credits.	Occ	LAB 1.0 5.0 0.0
CUL231AB	Culinary Studies Internship		Work experience preparing hot and cold foods in a commercial food service operation, experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables. Ten (10) hours of work weekly.	Prerequisites: A grade of C or better in CUL105, FON104, and permission of Department or Division.	CUL231AB may be repeated for a total of six (6) credits.	Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Supervision and evaluation by an internship coordinator.				
CUL231AC	Culinary Studies Internship		Work experience preparing hot and cold foods in a commercial food service operation, experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables. Fifteen (15) hours of work weekly. Supervision and evaluation by an internship coordinator.	Prerequisites: A grade of C or better in CUL105, FON104, and permission of Department or Division.	CUL231AC may be repeated for a total of six (6) credits.	Occ	LAB 3.0 15.0 0.0
CUL235	Advanced Culinary Techniques I - Meats		Theory and practice of the varied uses and preparation of protein products. Emphasis on butchering, creating stocks, soups and sauces, cooking methodologies, cost effective applications, plating and selection of appropriate accompaniments and garnishes.	Prerequisites: A grade of C or better in CUL230 or industry equivalent.		Occ	L+L 2.0 2.0 2.0
CUL236	Advanced Culinary Techniques II - Seafood		Theory and practice of the varied uses and preparation of seafood products. Emphasis on butchering, creating stocks, soups and sauces, cooking methodologies, cost-effective applications, plating and selection of appropriate accompaniments and garnishes.	Prerequisites: A grade of C or better in CUL230 or industry equivalent.		Occ	L+L 2.0 2.0 2.0
CUL237	Advanced Culinary Techniques III - Game and Poultry		Theory and practice of the varied uses and preparation of game and poultry products. Emphasis on butchering, creating stocks, soups and sauces, cooking methodologies, cost effective applications, plating and selection of appropriate accompaniments and garnishes.	Prerequisites: A grade of C or better in CUL230 or industry equivalent.		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
CUL240	Culinary Principles and Kitchen Management II		Advanced culinary and management practices instruction. Emphasis on principles and terminology used in contemporary kitchens. Identification and use of fish and shellfish and game. Understanding of wine, beer and spirits. Study of diversity of international cuisines and menu development. Special emphasis on management functions and practices for kitchen supervisors and chefs, staff hiring, training and evaluation, point of sale system components, cost accounting procedures, legal regulations and maintenance of records to understand and control profit and loss.	Prerequisites: A grade of C or better in CUL140.		Occ	LEC 3.0 3.0 3.0
CUL245	Professional Kitchen Management Techniques		Theory and practice of the key elements of kitchen leadership. Emphasis on identifying leadership and communication skills, understanding employment laws, establishing performance criteria, developing accountability, utilizing motivational procedures and training practices, controlling labor and food costs, maintaining guest satisfaction and bottom line profits.	Prerequisites: A grade of C or better in CUL240 or industry equivalent.		Occ	L+L 2.0 2.0 2.0
CUL250	Garde Manger II		Refinement of skills required in a Garde Manger Department. Preparation of appetizers, hors d'oeuvres, salads, salad dressings, use of grains and legumes, production of charcuterie and display pieces. Emphasis placed on eye appeal, texture, color	Prerequisites: A grade of C or better in CUL150.		Occ	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			contrast, artistic touch, taste and processing. Includes study of production and storage of ingredients, sanitation and hygiene standards				
CUL255	Advanced Garde Manger I - Salads and Sandwiches		Theory and practice of creating simple and complex salads and sandwiches. Emphasis on use of multiple ingredients for hot and cold products, dressings, emulsified oils and vinegars, condiments, production methodologies, cost effective applications, plating and appropriate accompaniments and garnishes.	Prerequisites: A grade of C or better in CUL250 or industry equivalent.		Occ	L+L 2.0 2.0 2.0
CUL256	Advanced Garde Manger II - Appetizers and Hors d'oeuvres		Theory and practice of the key elements in production of appetizers and hors d'oeuvres. Emphasis on ingredient selection, flavor combinations, preparation methodologies, cost effective applications, displaying, garnishing and plating.	Prerequisites: A grade of C or better in CUL250 or industry equivalent.		Occ	L+L 2.0 2.0 2.0
CUL260	Bakery II		Focuses on theory and practice of operating a bakery or pastry shop in a hotel or restaurant kitchen. Provides experience in planning, ordering, scheduling and producing fine French and American pastries and baked goods. Emphasis placed on rapid, high-quality hand production and assembly of breads, desserts and garnishes.	Prerequisites: A grade of C or better in CUL160.		Occ	L+L 3.0 7.5 7.5
CUL265	Professional Baking I - Base Products and Sauces		Theory and practice of the preparation of base products and sauces. Emphasis on creating finished products using basic components, creating sauces, and study of cooking	Prerequisites: A grade of C or better in CUL260 or industry equivalent.		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			methodologies, cost effective applications and plating techniques.				
CUL266	Professional Baking II - Breads and Rolls		Theory and practice of cooking techniques and procedures in the preparation of breads and rolls. Emphasis on hands-on production of scratch recipes, understanding formulas, ratios and ingredient interaction for producing high quality breads and rolls, cooking methodologies, and cost-effective applications. Focus on production of yeast-leavened breads, quick breads, laminated dough, unleavened dough and artisan style breads.	Prerequisites: A grade of C or better in CUL260 or industry equivalent.		Occ	L+L 2.0 2.0 2.0
CUL267	Professional Baking III - Pastries, Pies and Cakes		Theory and practice of the preparation of complex pastries, pies and cakes. Emphasis on cooking methodologies, high quality cost effective applications, and visually dramatic plating and garnishing techniques.	Prerequisites: A grade of C or better in CUL260 or industry equivalent.		Occ	L+L 2.0 2.0 2.0
CUL268	Professional Baking IV - Decorative and Design Work		Theory and practice of the varied uses and preparation of chocolate and sugar as decorative items. Emphasis on applications for advanced show work, cooking methodologies, cost effective applications for plated desserts and use as appropriate display pieces.	Prerequisites: A grade of C or better in CUL260 or industry equivalent.		Occ	L+L 2.0 2.0 2.0
CUL270	Dining Room Operations II		Theory and practice of operating a formal dining room, including set-up and clean-up, food and beverage service, proper etiquette and tableside food preparation. Emphasis on formal etiquette and service	Prerequisites: A grade of C or better in CUL170.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			practices for a dining room including buffet and banquet set-up and managerial duties				
CUL296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
CUL296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
CUL296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
CUL296WD	Cooperative Education		Work-college experiences that involve the combined efforts of	Prerequisites: Completion of at least		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
CUL298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
CUL298AB	Special Projects		Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of Program		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
CUL298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
CWE198AA	Career/Work Experience		Participation in a work experience, gaining on-the-job training, and/or exploring a career or field of choice. Helps students relate their education to the real work world. Resume writing and interviewing skills. Development of employability skills	Prerequisites: None.		Acad	L+L 1.0 1.0 1.0
CWE198AB	Career/Work Experience		Participation in a work experience, gaining on-the-job training, and/or exploring a career or field of choice. Helps students relate their	Prerequisites: None.		Acad	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			education to the real work world. Resume writing and interviewing skills. Development of employability skills				
CWE198AC	Career/Work Experience		Participation in a work experience, gaining on-the-job training, and/or exploring a career or field of choice. Helps students relate their education to the real work world. Resume writing and interviewing skills. Development of employability skills	Prerequisites: None.		Acad	L+L 3.0 3.0 3.0
CWE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
CWE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE				
CWE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
DAE112	Dental Assisting I		Introduction to general dentistry, dental sciences, and basic preclinical dental assisting theory and skills. Topics include dental anatomy, recording oral conditions, infection control, patient preparation, communication, patient safety and comfort, emergency management, four-handed dentistry concepts and the use and maintenance of dental equipment, and development of professional behaviors.	Prerequisites: Acceptance into the Dental Assisting Program or permission of Program Director.		Occ	LEC 7.0 7.0 7.0 LAB 0.0 10.0 10.0
DAE124	Dental Radiography		Physics of radiography, theory of radiation production, exposure techniques, radiation protection, digital image production, film processing, mounting, and interpretation of radiographs.	Prerequisites: A grade of C or better in DAE156 or permission of Program Director. Corequisites: DAE131 or permission of Program Director.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DAE131	Dental Radiography Laboratory		Radiation safety and infection control procedures for operator and patient. Image receptor placement, exposure, processing, mounting, and evaluation of dental radiographs. Operation and maintenance of x-ray and processing equipment. Interpretation of radiographic findings.	Prerequisites: A grade of C or better in DAE156 or permission of Program Director. Corequisites: DAE124 or permission of Program Director.		Occ	LAB 2.0 6.0 6.0
DAE140	Dental Issues Seminar		Examination of legal and ethical responsibilities of dental team members. Review and analysis of clinical procedures in general and specialty practices. Includes professional and career development strategies and certification information and processes.	Prerequisites: A grade of C or better in DAE156 or permission of Program Director. Corequisites: (DAE224, DAE225, DAE226, DAE227, and DAE228) or permission of Program Director.		Occ	LEC 1.0 1.0 1.0
DAE156	Dental Assisting II		Intermediate dental assisting skills, with an emphasis in treatment provided in general dentistry, including an introduction to dental diseases and their prevention, and preparing for and assisting in general dental restorative procedures, including the use of local anesthetics, dental materials, and pharmacological agents for procedures. Introduction to ethics and the legal aspects of dental practices.	Prerequisites: A grade of C or better in DAE112 or permission of Program Director.		Occ	LEC 7.0 7.0 7.0 LAB 0.0 10.0 10.0
DAE212	Dental Assisting III		Advanced dental assisting skills, with an emphasis in assisting for dental specialty procedures, including pediatrics, endodontics, periodontics,	Prerequisites: A grade of C or better in DAE156 or permission of Program Director.		Occ	LEC 2.0 2.0 2.0 LAB 0.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			orthodontics, prosthodontics, and oral and maxillofacial surgery. Additional emphasis will be on expanded functions procedures performed by the dental assistant, as well as patient records management and pharmacology related to dental treatment procedures.				
DAE224	General Clinical Practice		Placement of students in general practice dental facilities for supervised practical experience.	Prerequisites: A grade of C or better in DAE112 and DAE156, or Permission of Program Director. Corequisites: DAE140 or permission of Program Director.		Occ	LAB 1.0 5.0 0.0
DAE225	Pediatric Clinical Practice		Placement of students in pediatric dental facilities for supervised practical experience.	Prerequisites: A grade of C or better in DAE112 and DAE156, or Permission of Program Director. Corequisites: DAE140 or permission of Program Director.		Occ	LAB 1.0 5.0 0.0
DAE226	Periodontal Clinical Practice		Placement of students in periodontal facilities for supervised practical experience.	Prerequisites: A grade of C or better in DAE112 and DAE156, or Permission of Program Director. Corequisites: DAE140 or permission of Program Director.		Occ	LAB 1.0 5.0 0.0
DAE227	Orthodontic Clinical Practice		Placement of students in orthodontic facilities for supervised practical experience.	Prerequisites: A grade of C or better in DAE112 and		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				DAE156, or Permission of Program Director. Corequisites: DAE140 or permission of Program Director.			
DAE228	Oral and Maxillofacial Surgery Clinical Practice		Placement of students in oral and maxillofacial surgical facilities for supervised practical experience.	Prerequisites: A grade of C or better in DAE112 and DAE156, or Permission of Program Director. Corequisites: DAE140 or permission of Program Director.		Occ	LAB 1.0 5.0 0.0
DAE240	Dental Radiographic Imaging		Dental radiographic imaging. Diagnostic value of radiographs, image geometry, exposure techniques, processing of intra-oral and extra-oral radiographs covered. X-ray production, exposure factors, and image characteristics emphasized. Identification of image defects and corrective measures. Biological effects of x-radiation, radiation safety, digitized radiography, infection control procedures, and legal implications also covered.	Prerequisites: Admission to the Clinical Dental Assisting Program or permission of Department or Division.		Occ	L+L 3.0 4.0 4.0
DAE256	Dental Assisting IV		Advanced dental assisting sciences, with an emphasis in the recognition of oral pathologies, use of technology in dentistry, intermediate dental office management skills, and legal considerations for the practice of dentistry. Additional emphasis will be placed on coronal	Prerequisites: A grade of C or better in DAE212 or permission of Program Director.		Occ	LEC 2.0 2.0 2.0 LAB 0.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			polishing and community oral health.				
DAE285	Clinical Dental Assisting Seminar		Overview of special topics in clinical dental assisting. Clinical internship evaluation included. Covers expanded functions, legal responsibilities and liabilities. One hundred (100) hours of designated work required.	Prerequisites: None. Corequisites: DAE290.		Occ	L+L 2.0 2.0 0.0
DAE290	Internship for Clinical Dental Assistants		Perform clinical dental assisting skills within a dental practice setting. Practice safety and infection control, clinical and expanded dental assisting, patient management, laboratory skills, business assisting, equipment operation, and maintenance. Operate within practice standards, and record and evaluate internship experience. Two hundred (200) hours of designated work required.	Prerequisites: Permission of Program Director. Corequisites: DAE285.		Occ	L+L 4.0 4.0 4.0
DAE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
DAE298AB	Special Projects		Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of Program		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
DAE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
DAH100	Introduction to Dance		Overview of the field of dance focusing on origins, historical development, and cultural characteristics of the various styles of dance	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
DAH201	Dance, Culture, and Global Contexts		Introduction to the study of dance as culture in diverse global contexts.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
DAH250	Dance in Popular Culture		Interdisciplinary approach investigating	Prerequisites: None.	Course Attribute(s):	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			diverse cultural dance practices that have shaped American popular culture from the late 19th century to the present. Highlights issues of power, class, race, ethnicity, gender, age and sexuality. Emphasis is on revealing diverse cultural influences in U.S. popular culture.		General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Cultural Diversity - [C]		
DAH255	Hip Hop: Arts, Aesthetic and Culture		Selective survey and historico-cultural analysis of hip hop arts, aesthetics and culture organized around the founding elements of DJing, MCing, B-boy and B-girling, graffiti arts and knowledge.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
DAN101AA	Social Dance: Ballroom		Theory and practice of Ballroom dance. Development of movement quality and performance skills individually, with a partner or in a group setting.	Prerequisites: None.	DAN101AA may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0
DAN101AB	Social Dance: Swing		Theory and practice of Swing dance. Development of movement quality and performance skills individually, with a partner or in a group setting.	Prerequisites: None.	DAN101AB may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0
DAN101AC	Social Dance: Latin		Theory and practice of Latin dance. Development of movement quality and performance skills	Prerequisites: None.	DAN101AC may be repeated for a total of	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			individually, with a partner or in a group setting.		four (4) credits.		
DAN101AE	Social Dance: Tango		Theory and practice of Tango dance. Development of movement quality and performance skills individually, with a partner or in a group setting.	Prerequisites: None.	DAN101AE may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0
DAN102	Hip Hop I		Theory and practice of Hip Hop dance at the beginning level. Development of movement quality and performance skills.	Prerequisites: None.	DAN102 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN102PA	Hip Hop Basic Level		Theory and practice of Hip Hop dance at the basic level. Development of movement quality and improvisation skills. Dance training for personal skill development and interest.	Prerequisites: None.	DAN102PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN103	Hip Hop II		Theory and practice of Hip Hop dance at the advanced beginning level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN102 or permission of Instructor.	DAN103 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN103PA	Hip Hop Beginning Level		Theory and practice of Hip Hop dance at the beginning level. Development of movement quality and improvisation skills. Dance training for personal skill development and interest.	Prerequisites: A grade of C or better in DAN102 or DAN102PA or permission of Instructor.	DAN103PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN104AA	Ballroom I		Theory and practice of Ballroom dance at the beginning level. Development of movement quality and performance skills.	Prerequisites: None.	DAN104AA may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN104AB	Ballroom II		Theory and practice of Ballroom dance at the advanced beginning level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN104AA or permission of Instructor.	DAN104AB may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN106AA	Latin I		Theory and practice of Latin dance at the	Prerequisites: None.	DAN106AA may be	Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			beginning level. Development of movement quality and performance skills.		repeated for credit.		
DAN106AB	Latin II		Theory and practice of Latin dance at the advanced beginning level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN106AA or permission of Instructor.	DAN106AB can be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN108AA	Tango I		Theory and practice of Tango dance at the beginning level. Development of movement quality and performance skills.	Prerequisites: None.	DAN108AA may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN108AB	Tango II		Theory and practice of Tango dance at the advanced beginning level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN108AA or permission of Instructor.	DAN108AB may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN115	Dance Trends		Theory and practice of current social dance trends. Development of movement quality and performance skills.	Prerequisites: None.	DAN115 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN120AB	World Dance: Flamenco		Theory and practice of Flamenco. Development of movement quality and performance skills, individually, with a partner or in a group setting.	Prerequisites: None.	DAN120AB may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN120AE	World Dance: Middle Eastern Dance		Theory and practice of Middle Eastern dance. Development of movement quality and performance skills.	Prerequisites: None.	DAN120AE may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN120AK	World Dance: Capoeira		Theory and practice of Capoeira. Development of movement quality and performance skills.	Prerequisites: None.	DAN120AK may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN129	Musical Theatre Dance I		Introduction to the theory and practice of musical theatre dance at the beginning level. Development of movement quality and performance skills.	Prerequisites: None.	DAN129 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN130	Musical Theatre Dance II		Theory and practice of musical theatre dance at the advanced beginning level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN129 or permission of Instructor.	DAN130 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DAN131	Ballet I		Introduction to the theory and practice of ballet at the beginning level. Development of movement quality and performance skills.	Prerequisites: None.	DAN131 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN131PA	Ballet Basic Level		Dance training for personal skill development and interest. Introduction to the theory and practice of ballet at the basic level.	Prerequisites: None. Prior dance experience suggested but not required.	DAN131PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN132	Modern Dance I		Introduction to the theory and practice of modern dance at the beginning level. Development of movement quality and performance skills.	Prerequisites: None.	DAN132 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN132PA	Modern Dance Basic Level		Dance training for personal skill development and interest. Introduction to the theory and practice of modern dance at the basic level.	Prerequisites: None. Prior dance experience suggested but not required.	DAN132PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN133	Jazz Dance I		Introduction to the theory and practice of jazz dance at the beginning level. Development of movement quality and performance skills.	Prerequisites: None. Corequisites: DAN138 for dance majors.	DAN133 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN133PA	Jazz Basic Level		Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the basic level.	Prerequisites: None. Prior dance experience suggested but not required.	DAN133PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN134	Ballet II		Theory and practice of ballet at the advanced beginning level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN131 or permission of Instructor.	DAN134 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN134PA	Ballet Beginning Level		Dance training for personal skill development and interest. Theory and	Prerequisites: A grade of C or better in DAN131PA or permission	DAN134PA may be repeated for credit. Course is	Occ	L+L 0.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			practice of ballet at the beginning level.	of Department or Division.	not intended for dance majors.		
DAN135	Modern Dance II		Theory and practice of modern dance at the advanced beginning level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN132 or permission of Instructor.	DAN135 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN135PA	Modern Dance Beginning Level		Dance training for personal skill development and interest. Theory and practice of modern dance at the beginning level.	Prerequisites: A grade of C or better in DAN132PA or permission of Department or Division.	DAN135PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN136	Jazz Dance II		Theory and practice of jazz dance at the advanced beginning level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN133 or permission of Instructor.	DAN136 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN136PA	Jazz Beginning Level		Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the beginning level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN133PA or permission of Department or Division.	DAN136PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN140	Tap Dance I		An introduction to the theory and practice of tap dance.	Prerequisites: None.	DAN140 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN141	Dance Workshop		An intensive experience in the process of choreography, performance, and production elements.	Prerequisites: None.	DAN141 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN145	Tap Dance II		Theory and practice of tap dance at an advanced beginning level.	Prerequisites: A grade of C or better in DAN140 or permission of Instructor.	DAN145 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN146	Tap Dance Ensemble		Introduction to the process and practice of dance performance, specific to the genre of tap dance.	Prerequisites: A grade of C or better in DAN140 or permission of Instructor.	DAN146 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DAN150	Dance Performance I		An introduction to the process and practice of dance performance.	Prerequisites: None. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance.	DAN150 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN155	Dance Performance II		Continued study of the process and practice of dance performance at advanced beginning level.	Prerequisites: A grade of C or better in DAN150 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance.	DAN155 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN164	Improvisation		An introduction to and an exploration of basic improvisational dance skills.	Prerequisites: None.	DAN164 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN170	Dance Kinesiology		In-depth study of how the human body functions during dance movement both theoretically and practically. Attention given to correct body alignment and use while dancing, exploring each part of the body individually and analyzing the body as a whole.	Prerequisites: None. Corequisites: Any dance technique course.		Occ	LEC 3.0 3.0 3.0
DAN190	Discovering Dance Careers		An overview of the professional opportunities available in dance and dance related fields.	Prerequisites: None.	DAN190 may be repeated for credit.	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DAN191	Viewing Dance		This course emphasizes developing critical analysis skills in order to find effective and intelligent ways of viewing and discussing choreography, dance for film, and lighting design for dance. Students will view masterpiece examples of choreography, dance for film, and lighting design from notable artists during the 20th and 21st centuries spanning various genres of dance.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
DAN192	Digital Music for Dancers		Learn to use Digital Audio Workstation (DAW) software to edit and create music for dance performance and film as well as fix audio issues in music and sound.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
DAN193	Professional Promotion for Dancers		An introduction to professional promotion for dancers. Design software and online applications will be used to manipulate photos and graphics in the creation of design projects for promotion.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
DAN201AA	Special Topics: Dance		Exploration of current topics, issues and activities related to one or more aspects of dance.	Prerequisites: Permission of Instructor.	Designed to offer special topics and/or specialized training for students in dance. Includes activities for portfolio enhancement.	Occ	L+L 1.0 1.0 1.0
DAN201AB	Special Topics: Dance		Exploration of current topics, issues and activities related to one or more aspects of dance.	Prerequisites: Permission of Instructor.	Designed to offer special topics and/or specialized training for students in dance. Includes	Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					activities for portfolio enhance-ment		
DAN201AC	Special Topics: Dance		Exploration of current topics, issues and activities related to one or more aspects of dance.	Prerequisites: Permission of Instructor.	Designed to offer special topics and/or specialized training for students in dance. Includes activities for portfolio enhance-ment	Occ	L+L 3.0 3.0 3.0
DAN202	Hip Hop III		Theory and practice of Hip Hop dance at the beginning intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN103 or permission of Instructor.	DAN202 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN202PA	Hip Hop Intermediate Level		Theory and practice of Hip Hop dance at the intermediate level. Development of movement quality and improvisation skills. Dance training for personal skill development and interest.	Prerequisites: A grade of C or better in DAN103, or DAN103PA, or permission of Instructor.	DAN202PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN203	Hip Hop IV		Theory and practice of Hip Hop dance at the intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN202 or permission of Instructor.	DAN203 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN203PA	Hip Hop Intermediate Advanced Level		Theory and practice of Hip Hop dance at the intermediate advanced level. Development of movement quality and improvisation skills. Dance training for personal skill development and interest.	Prerequisites: A grade of C or better in DAN202, or DAN202PA, or permission of Instructor.	DAN203PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN210	Dance Production I		Introduction to the elements of pre-production and production, including but not limited to production organization, production management, lighting	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			design, and sound design as they relate to the art of dance.				
DAN220	Dance Career Preparation		This course provides foundational skills for employment in the field of dance including career research; development of promotional materials; interview and audition preparation; and entrepreneurial strategies for achieving educational and career goals.	Prerequisites: A grade of C or better in ENG101 or permission of Instructor.		Occ	L+L 3.0 3.0 3.0
DAN221	Rhythmic Awareness I		Exploration of rhythm in dance performance, choreography and pedagogy. Emphasis on the basic understanding of rhythm and cultivating awareness of rhythm in everyday life.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
DAN229	Musical Theatre Dance III		Theory and practice of musical theatre dance at the beginning intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN130 or permission of Instructor.	DAN229 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN230	Musical Theatre Dance IV		Theory and practice of musical theatre dance at the intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN229 or permission of Instructor.	DAN230 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN231	Ballet III		Theory and practice of ballet at the beginning intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN134 or permission of Instructor.	DAN231 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN231AA	Ballet III: Intensive		Theory and intensive practice of ballet at the beginning intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN134 or permission of Instructor.	DAN231AA may be repeated for credit.	Occ	L+L 2.0 5.0 5.0
DAN231PA	Ballet Intermediate Level		Dance training for personal skill development and interest. Theory and practice of ballet at the intermediate level.	Prerequisites: A grade of C or better in DAN134PA or permission of	DAN231PA may be repeated for credit. Course is not intended for	Occ	L+L 0.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Department or Division.	dance majors.		
DAN232	Modern Dance III		Theory and practice of modern dance at the beginning intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN135 or permission of Instructor.	DAN232 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN232AA	Modern Dance III: Intensive		Theory and intensive practice of modern dance at the beginning intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN135 or permission of Instructor.	DAN232AA may be repeated for credit.	Occ	L+L 2.0 5.0 5.0
DAN232PA	Modern Dance Intermediate Level		Dance training for personal skill development and interest. Theory and practice of modern dance at the intermediate level.	Prerequisites: A grade of C or better in DAN135PA or permission of Department or Division.	DAN232PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN233	Jazz Dance III		Theory and practice of jazz dance at the beginning intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN136 or permission of Instructor.	DAN233 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN233AA	Jazz Dance III: Intensive		Theory and intensive practice of jazz dance at the beginning intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN136 or permission of Instructor.	DAN233AA may be repeated for credit.	Occ	L+L 2.0 5.0 5.0
DAN233PA	Jazz Intermediate Level		Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the intermediate level.	Prerequisites: A grade of C or better in DAN136PA or permission of Department or Division.	DAN233PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN234	Ballet IV		Theory and practice of ballet at the intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN231 or permission of Instructor.	DAN234 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN234AA	Ballet IV: Intensive		Theory and intensive practice of ballet at the advanced intermediate level. Development of	Prerequisites: A grade of C or better in DAN231AA	DAN234AA may be repeated for credit.	Occ	L+L 2.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			movement quality and performance skills.	or permission of Instructor.			
DAN234PA	Ballet Advanced Level		Dance training for personal skill development and interest. Theory and practice of ballet at the advanced level.	Prerequisites: A grade of C or better in DAN231PA or permission of Department or Division.	DAN234PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN235	Modern Dance IV		Theory and practice of modern dance at the intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN232 or permission of Instructor.	DAN235 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN235AA	Modern Dance IV: Intensive		Theory and intensive practice of modern dance at the advanced intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN232AA or permission of Instructor.	DAN235AA may be repeated for credit.	Occ	L+L 2.0 5.0 5.0
DAN235PA	Modern Dance Advanced Level		Dance training for personal development and interest. Theory and practice of modern dance at the advanced level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN232PA or permission of Department or Division.	DAN235PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5
DAN236	Jazz Dance IV		Theory and practice of jazz dance at the intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN233 or permission of Instructor.	DAN236 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN236AA	Jazz Dance IV: Intensive		Theory and intensive practice of jazz dance at the advanced intermediate level. Development of movement quality and performance skills.	Prerequisites: A grade of C or better in DAN233AA or permission of Instructor.	DAN236AA may be repeated for credit.	Occ	L+L 2.0 5.0 5.0
DAN236PA	Jazz Advanced Level		Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the advanced level.	Prerequisites: A grade of C or better in DAN233PA or permission of Department or Division.	DAN236PA may be repeated for credit. Course is not intended for dance majors.	Occ	L+L 0.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DAN237	Ballet Pointe I		An introduction to the theory and practice of pointe work at the beginning level. Development of strength and movement quality.	Prerequisites: A grade of C or better in DAN134 or permission of Instructor. Corequisites: DAN231 or DAN234.	DAN237 may be repeated for credit.	Occ	L+L 1.0 1.0 1.0
DAN240	Tap Dance III		Theory and practice of tap dance at a beginning intermediate level.	Prerequisites: A grade of C or better in DAN145 or permission of Instructor.	DAN240 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN245	Tap Dance IV		Theory and practice of tap dance at an intermediate level.	Prerequisites: A grade of C or better in DAN240 or permission of Instructor.	DAN245 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN250	Dance Performance III		Continued study of the process and practice of dance performance at beginning intermediate level.	Prerequisites: A grade of C or better in DAN155 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance.	DAN250 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
DAN255	Dance Performance IV		Continued study of the process and practice of dance performance at the intermediate level.	Prerequisites: A grade of C or better in DAN250 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz,	DAN255 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				hip hop, tap, social, or world dance.			
DAN264	Choreography I		Study of basic dance choreography to include construction of a phrase, structure and form in a composition, and the basic elements of time, space and energy	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
DAN265	Choreography II		Exploration of choreography at the intermediate level. Experimentation with the various approaches to creative practice as established by 20th and 21st century artists.	Prerequisites: A grade of C or better in DAN264 or permission of Instructor.		Occ	L+L 3.0 3.0 3.0
DAN272	Dance Technology		Survey of the expanding field of technology as it pertains to the study and performance of dance.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
DAN275	Choreography for Film and Video		Introduction to creating choreography uniquely for screen medium, emphasizing relationship between choreography, work of the camera, and the editing in maintaining the three dimensional qualities of movement when transferred to the two dimensional space of the screen.	Prerequisites: None. DAN264 recommended but not required.		Occ	LEC 3.0 3.0 3.0
DAN280	Dance Practicum		A culmination of coursework for the dance major requiring completion of an extended choreographic work from conception to performance. Also requires a final evaluative paper on the successes and challenges encountered throughout the project.	Prerequisites: Permission of Instructor.	DAN280 may be repeated for credit.	Occ	L+L 2.0 3.0 3.0
DAN282AA	Service-Learning Experience in Dance		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	DAN282AA may be repeated for a total of six (6) credit hours. Standard grading available according	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					to procedures outlined in catalog.		
DAN282AB	Service-Learning Experience in Dance		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	DAN282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0
DAN282AC	Service-Learning Experience in Dance		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	DAN282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 3.0 3.0 0.0
DAN290AA	Dance Conservatory I		An intensive course focusing on the theory and practice of dance technique including, but not limited to, ballet, modern dance, modern jazz, pilates, yoga and dance performance at the beginning level. Study of repertory and development of movement quality and performance skills. Includes an informal public showing of dance technique and performance skills.	Prerequisites: None.	DAN290AA may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 3.0 3.0
DAN290AB	Dance Conservatory I		An intensive course focusing on the theory and practice of dance technique including, but not limited to, ballet, modern dance, modern jazz, pilates, yoga and	Prerequisites: None.	DAN290AB may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			dance performance at the beginning level. Study of repertory and development of movement quality and performance skills. Includes an informal public showing of dance technique and performance skills.				
DAN290AC	Dance Conservatory I		An intensive course focusing on the theory and practice of dance technique including, but not limited to, ballet, modern dance, modern jazz, pilates, yoga and dance performance at the beginning level. Study of repertory and development of movement quality and performance skills. Includes an informal public showing of dance technique and performance skills.	Prerequisites: None.	DAN290AC may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 9.0 9.0
DAN293	Teaching Dance in Elementary Education		Introduction to theories and methods of teaching dance and movement in the elementary school setting. Includes planning, facilitating, and assessing dance and movement experiences for grades K-6.	Prerequisites: A grade of C or better in (BIO160, DAN231, DAN232, DAN233 and DAN264) or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
DAN294	Teaching Dance In Secondary Education		Introduction to the theories and methods of teaching dance and movement in the secondary school setting. Includes planning, facilitating, and assessing dance and movement experiences for grades 7-12.	Prerequisites: A grade of C or better in (BIO160, DAN231, DAN232, DAN233 and DAN264) or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
DAN298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise	Prerequisites: Permission of Program Director or Instructor.	DAN298AA may be repeated for credit.	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
DAN298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
DAN298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
DFT105AA	Computer Aided Drafting I: AutoCAD		Industrial use of AUTOCAD equipment (hardware and software) in the areas of	Prerequisites: None.	Course Attribute(s): General Education	Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			mechanical, electronic and construction drawings		Designation : Computer/S tats/Quantit ative Apps - [CS] in combination with: CSC100 or CSC100AA or CSC100AB.		
DFT106	Algebra and Graphs for Design Technology		Algebraic principles and applications used in the design trades. Additional topics in the use of rectangular coordinates.	Prerequisites: A grade of C or better in MAT092 or equivalent or 1 year of high school algebra or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
DFT107	Trigonometry and Analytic Geometry for Design Technology		An introduction to plane trigonometry and plane and solid geometry with practical applications to the field of design drafting. Problems in the analysis of force, stress, and vectors as well as primary geometric considerations	Prerequisites: A grade of C or better in DFT106 or equivalent.		Occ	LEC 3.0 3.0 3.0
DFT110	Introduction to Drafting		Fundamentals of drafting including lettering, basic drawing concepts, geometric construction and multiview projection.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
DFT111	Intermediate Drafting		Dimensioning and tolerancing, sectional views and auxiliary views.	Prerequisites: A grade of C or better in DFT105AA, or DFT110, or equivalent.		Occ	L+L 3.0 6.0 6.0
DFT112	Advanced Drafting		Detail and assembly drawings, dimensioning and tolerancing per current manufacturing standards.	Prerequisites: A grade of C or better in (DFT111 and DFT254AA) or equivalent.		Occ	L+L 3.0 6.0 6.0
DFT114	Machine Trades Blueprint Reading		Analysis and interpretation of technical drawings, common to manufacturing and the machine trades	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DFT115	Geometric Dimensioning and Tolerancing		Principles and application of the latest techniques in geometric dimensioning and tolerancing in accordance with current American Society of Mechanical Engineers (ASME) Y14.5M. Recommended for all manufacturing personnel who read or produce engineering drawings related to contracts with the U.S. Government.	Prerequisites: A grade of C or better in DFT110 or Corequisites: DFT110 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
DFT126	Building Trades Blueprint Reading		Analysis and interpretation of technical drawings common to the construction industry and building trades	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
DFT254AA	Computer Aided Drafting II: AutoCAD		Advanced AutoCAD techniques in constructing three-dimensional objects and symbols, dimensioning and text; advanced techniques for projection, rotation, and translation of objects; advanced plotter use.	Prerequisites: A grade of C or better in DFT105AA or equivalent or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
DFT255	3D Printing/Additive Manufacturing		Rapidly advancing additive manufacturing (AM) technologies, often called 3D printing, provide us a direct way of converting digital data into physical objects. Additive manufacturing enables the building of customized parts previously impossible to fabricate. Design for additive manufacturing teaches background, terminology, fundamentals designing for additive manufacturing, and current AM technology as well as advantages and limitations of 3D printing, materials, and post-processing. Students will learn and apply technique through	Prerequisites: A grade of C or better in DFT254AA or or permission of Department or Division.		Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			lab activities, machine operation and maintenance, part design and analysis, adapting stereolithography files, printing models, and post-processing.				
DFT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
DFT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
DFT296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DFT296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
DFT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DFT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
DFT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
DHE110	Pharmacology		Study of the principles of pharmacology and drugs affecting oral health and dental treatment. Topics include drug interactions, oral manifestations, drugs used in dentistry and alternative medicine.	Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
DHE112	Oral Pathology		Identification, classification, etiology and treatment of lesions of the oral mucosa and atypical conditions of the oral cavity and	Prerequisites: Admission to the Dental Hygiene Program or		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			supporting structures. Understanding of abnormal conditions to recognize the parameters of comprehensive dental hygiene care. Multimedia resources are used extensively for identification of oral lesions.	permission of Instructor.			
DHE115	Emergency Medicine		Introduction to recording and interpreting medical history. Additional topics include: recognition of signs and symptoms of medical emergencies, procedures and techniques introduced to prevent emergencies and management of emergency situations in the dental environment.	Prerequisites: Admission to the Dental Hygiene Program.		Occ	LEC 2.0 2.0 2.0
DHE117	Dental Radiography		Physics of radiography, theory of radiation production, exposure techniques, radiation protection, image processing, mounting, and interpretation of radiography. Course activities include multimedia resources.	Prerequisites: Admission to the Dental Hygiene Program or permission of Program Director.		Occ	LEC 2.0 2.0 2.0
DHE119	Head and Neck Anatomy		Study of the structures of the head and neck relevant to dental hygiene. Topics include: osteology, musculature, vascular supply, lymph and glandular tissue, cranial nerves and routes of infection. Course activities include use of skulls, models and multimedia resources.	Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
DHE120	Pre-Clinical Dental Hygiene		Introduction to the dental hygiene profession and the process of care. Infection control, patient assessment, preventive treatment and dental hygiene instrumentation are practiced. Students are introduced to self	Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor.		Occ	L+L 6.0 12.0 12.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			assessment skills and quality improvement.				
DHE121	Dental Anatomy, Embryology and Histology		Includes the histology and embryology of oral tissues; developmental disturbances of the face, oral cavity, and related structures; tooth composition and morphology including anomalies; eruption patterns and occlusal evaluation. Use of skulls, models and multimedia resources also covered.	Prerequisites: Admission to the Dental Hygiene Program.		Occ	L+L 2.0 3.0 3.0
DHE125	Dental Radiography Laboratory		Radiation safety and infection control procedures for operator and patient. Image receptor placement, exposure, processing, mounting and evaluation of dental radiographs. Operation and maintenance of X-ray and processing equipment. Interpretation of radiographic findings.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (DHE117 and admission to the Dental Hygiene Program) or permission of Program Director.		Occ	LAB 1.0 3.0 3.0
DHE127	Prevention of Dental Disease		Introduction to preventive aids, agents, and coaching to help patients achieve optimum oral health, reduce incidence of disease, and minimize risk of oral injury. Instills critical thinking in etiologic agents, cariology, fluorides, sealants, nutrition, and their oral and systemic implications.	Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
DHE132	Dental Hygiene Theory I		Study of the dental hygiene process of care with emphasis on assessment, planning and implementation. Topics include instrumentation, adjunct dental hygiene services, instrument sharpening, computer technology, dental specialties and	Prerequisites: A grade of C or better in (DHE120 and admission to the Dental Hygiene Program) or permission of Instructor. Corequisites: DHE133.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional accountability.				
DHE133	Dental Hygiene Clinic I		Application of the dental hygiene process of care with emphasis on assessment, planning, and implementation. Introduction to evaluation of dental hygiene therapy.	Prerequisites: A grade of C or better in DHE120 and admission to the Dental Hygiene Program. Corequisites: DHE132 and current CPR card.		Occ	LAB 3.0 9.0 9.0
DHE201	Dental Materials		Composition, properties and criteria for use of dental materials. Principles of manipulation of restorative, preventive, and laboratory dental materials.	Prerequisites: Admission to the Dental Hygiene Program or permission of Program Director/Chair. Corequisites: DHE202.		Occ	LEC 2.0 2.0 2.0
DHE202	Dental Materials Laboratory		Manipulate permanent and temporary restorative materials, impression materials/systems, cements, bases and liners. Fabricate mouth protectors, tooth whitening appliances and study models. Laboratory proficiency in margination of permanent restorative materials.	Prerequisites: Admission to the Dental Hygiene Program or permission of Program Director/Chair. Corequisites: DHE201.		Occ	LAB 1.0 3.0 3.0
DHE212	Dental Hygiene Theory II		Study of the dental hygiene process of care with emphasis on comprehensive care planning, case presentation, and clinical decision making. Introduction to advanced periodontal instrumentation.	Prerequisites: A grade of C or better in DHE132 and DHE133 and admission to the Dental Hygiene Program. Corequisites: DHE213.		Occ	L+L 2.0 3.0 3.0
DHE213	Dental Hygiene Clinic II		Application of the dental hygiene process of care with emphasis on comprehensive care planning, case presentation, clinical	Prerequisites: A grade of C or better in DHE132 and DHE133 and admission to		Occ	LAB 5.0 15.0 15.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			decision making, advanced instrumentation and improved time utilization.	the Dental Hygiene Program. Corequisites: DHE212.			
DHE219	Practice Management		Integration of practice management concepts and comprehensive quality patient care in preparation for future collaborative practice between dental hygienists and dentists. Students are challenged with practice situations including productivity, conflict management, ethical and legal issues.	Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
DHE225	Periodontics		Principles of periodontology; etiology, microbiology, pathogenesis, classification and characteristics of healthy and diseased periodontal tissues. Surgical treatment of periodontal disease and the effects of dental hygiene therapy, surgical techniques and maintenance therapy. Evaluation of the scientific literature and multi-media resources are used extensively.	Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
DHE227	Dental Anesthesia		A comprehensive lecture and laboratory course providing concepts and techniques for the administration of local anesthetic agents and nitrous oxide. Experience gained in medical history review, electronic recordkeeping, patient management, and hands-on experience administering local anesthetics and nitrous oxide in a clinical setting.	Prerequisites: A grade of C or better in DHE119.		Occ	LEC 2.0 2.0 2.0 LAB 0.0 3.0 3.0
DHE229	Community Oral Health		An examination of methods used to assess the oral health status of the community and to	Prerequisites: Admission to the Dental Hygiene		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			plan, implement, finance and evaluate dental public health programs. Focus on community-based health promotion and disease prevention measures to improve the oral health of the population, as well as the characteristics of dental care delivery systems and the social, political, psychological and economic factors affecting utilization within the system.	Program or permission of Instructor.			
DHE232	Dental Hygiene Theory III		Study of the dental hygiene process of care with emphasis on the patient with special needs and advanced instrumentation. Students participate in field observations and present case documentations.	Prerequisites: A grade of C or better in (DHE212 and DHE213) and admission to the Dental Hygiene Program. Corequisites: DHE233.		Occ	L+L 2.0 2.0 2.0
DHE233	Dental Hygiene Clinic III		Application of the dental hygiene process of care with emphasis on diverse populations. Students prepare for clinical practice using self assessment, evaluation and critical thinking skills.	Prerequisites: A grade of C or better in (DHE212 and DHE213) and admission to the Dental Hygiene Program. Corequisites: DHE232.		Occ	LAB 5.0 15.0 15.0
DHE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development. COMMON COMPETENCY COURSE				
DHE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
DHE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
DIE104	Electrical for Diesel Engines I		Introduces electrical principles and circuit theory through the operation, diagnostics and repair of batteries, starting and charging circuits. Concepts include magnetism, electrical circuits, DC electricity, electrical schematic reading,	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			interpretation, and testing.				
DIE106	Mobile Hydraulics and Pneumatics		The transmission of energy through hydraulic and pneumatic systems. Defines the function and operation of valves, cylinders, pumps, motors, accumulators, reservoirs, coolers, hoses, fluids, filters, seals and contamination control. Basic troubleshooting and schematic interpretation emphasized. Pneumatic functions discussed.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
DIE108	Heavy Duty Diesel PowerTrains		Introduction to powertrain concepts and operation of basic components of the powertrain system. Basic powertrain maintenance industry practices and skills that include but not limited to pressure testing and adjustments. Clutch fill calibration and some component disassembly will be covered.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
DIE112	General Diesel Engines		Introduction to diesel engine operation and related systems. Concepts include basic engine maintenance, engine tear-down, inspection, reassembly, and all necessary adjustments.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
DIE296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				(students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
DIE296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
DIE296WC	Cooperative Education		Work-college experiences that involve	Prerequisites: Completion		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
DIE296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
DIE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
DIE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
DIE298AC	Special Projects		Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of Program		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
DMI220	Sectional Anatomy	DMS220 ICE220	Sectional human anatomy in the transverse, sagittal and coronal planes. Emphasis on the brain, neck, chest, abdomen and pelvic cavity.	Prerequisites: (BIO160 or BIO201) and (HCC145 or HCC146), or a graduate of a related medical program of study or currently registered as a technologist in radiography, nuclear medicine, radiation therapy or sonography OR Admission to the Medical Radiography Program or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
DMI228	Radiography Practicum VII		Advanced imaging procedures.	Prerequisites: Permission of Instructor and acceptance by sponsoring clinical institution.	DMI228 may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DMS100	Introduction to Diagnostic Medical Sonography		Role of health care worker in diagnostic medical sonography. Job duties, responsibilities, working conditions and work environments in the inpatient and outpatient clinical settings. Overview of diagnostic and therapeutic procedures. Shadowing experience in diagnostic sonography department.	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
DMS101	Patient Care in Diagnostic Sonography		Safety procedures for the hospitalized patient. Transfer, moving and positioning techniques. Patient assessment methods and procedures. Protection of drains, tubes, intravenous lines, and infusion pumps. Gloving, gowning, and sterile procedures. Safe use and application of sonography equipment. Professional behavior and responsibility of the sonographer in the diagnostic imaging lab.	Prerequisites: Admission to the Diagnostic Medical Sonography program or permission of Instructor.		Occ	LAB 1.0 3.0 3.0
DMS110	Introduction to Diagnostic Sonography		Use of ultrasound including medical applications. Job description including opportunities, licensure, use of sonography equipment, responsibilities of diagnostic medical sonographers in the workplace, and medical ethics.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 3.0 3.0 3.0
DMS110LL	Introduction to Diagnostic Sonography Laboratory,		Use and maintenance of sonography equipment, and responsibilities of Diagnostic Medical Sonographers in the workplace.	Prerequisites: A grade of C or better in DMS110 or Corequisites: DMS110.		Occ	LAB 1.0 3.0 3.0
DMS120	Ultrasound Imaging: Abdominal Procedures I		Ultrasound evaluation of upper abdominal organs. Normal and pathologic ultrasound appearances of the liver, gallbladder, pancreas, biliary tree, spleen, adrenal glands,	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			kidneys, major vascular structures, and lymph nodes.				
DMS120LL	Ultrasound Imaging: Abdominal Procedures I Laboratory		Ultrasound evaluation of upper abdominal organs. Normal ultrasound appearances of the liver, gallbladder, pancreas, biliary tree, spleen, adrenal glands, kidneys, major vascular structures, small parts, and lymph nodes.	Prerequisites: A grade of C or better in DMS120 or Corequisites: DMS120.		Occ	LAB 1.0 3.0 3.0
DMS121	Ultrasound Imaging: Abdominal Procedures II		Ultrasound evaluation of upper abdominal organs. Normal and pathologic ultrasound appearances of the liver, gallbladder, pancreas, biliary tree, spleen, adrenal glands, kidneys, major vascular structures, lymph nodes, and small parts.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 3.0 3.0 3.0
DMS130	Ultrasound Imaging: OB/GYN Procedures		Ultrasound evaluation of the female pelvis, reproductive system, and fetus. Diagnostic tests related to the ultrasound procedure. Normal and pathologic ultrasound appearances of the fetus, placenta, uterus, cervix, fallopian tubes, and ovaries.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 3.0 3.0 3.0
DMS130LL	Ultrasound Imaging: OB/GYN Procedures Laboratory		Application of diagnostic concepts to evaluation of the pelvis, reproductive system, and fetus. Normal and pathologic ultrasound appearances of the fetus, placenta, uterus, cervix, fallopian tubes, ovaries, and male pelvis.	Prerequisites: None. Corequisites: DMS130 or permission of the Program Director.		Occ	LAB 1.0 3.0 3.0
DMS140	Ultrasound Case Studies: Part I		Medical terminology, anatomy, physical principles, and techniques for determining proper technical factors. Anatomical variants, normal, and pathological sonographic findings in diagnostic ultrasound case presentations.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DMS145	Clinical Pathology for Diagnostic Imaging		Disease etiology and impact on the human body. Physiologic effects of disease on body systems. Role of Diagnostic Medical Imaging (DMI) modalities in the diagnosis and treatment of selected disease processes. DMI as part of the health care team. Cultural implications in the prevention and treatment of disease.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 1.0 1.0 1.0
DMS148	Introduction to Musculoskeletal Sonographic Imaging		Ultrasound terminology. Ethics. Tissue structure and physiology in imaging. Legal ramifications. Documentation and reporting. Billing and coding. Professional standards. Roles healthcare clinicians and relationships to Sonography.	Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director.		Occ	LEC 1.0 1.0 1.0
DMS150	Sonographic Principles and Instrumentation I		Sonographic principles and instrumentation necessary for the performance of diagnostic sonographic imaging and vascular examinations. Quality control materials and procedures. Biological effects of ultrasound energy.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 3.0 3.0 3.0
DMS150LL	Sonographic Principles and Instrumentation Laboratory		Laboratory experience in support of DMS150.	Prerequisites: A grade of C or better in DMS150 or Corequisites: DMS150.		Occ	LAB 1.0 3.0 3.0
DMS151	Sonographic Principles and Instrumentation II		Sonographic principles and instrumentation necessary for the performance of diagnostic sonographic examinations using Hemodynamics and Doppler imaging. Identifying and reducing image artifacts. Quality control materials and procedures. Biological	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			effects of ultrasound energy.				
DMS155	Introduction to Clinical Care for Sonography		Observation of correct hospital policies and procedures in clinical simulation. The job description, duties, and functions of the sonographer. Career opportunities in ultrasound.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 1.0 5.0 0.0
DMS161	Clinical Practicum II-AA		Technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the beginner level. Hospital procedures and policies. Observation, assistance, and performance of clerical, patient care, and sonographic duties under strict supervision.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 2.0 10.0 0.0
DMS162	Clinical Practicum II-AB		Development of technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the beginner level. Hospital procedures and policies. Continued observation, assistance and performance of clerical, patient care and sonographic duties under strict supervision.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 2.0 10.0 0.0
DMS171	Clinical Practicum III-AA		Technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the advanced beginner level. Reinforcement and broadening of knowledge base related to hospital procedures and policies. Observation, assistance and performance of patient care and sonographic duties under moderate supervision.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 2.0 10.0 0.0
DMS172	Clinical Practicum III-AB		Continued technical and professional aspects of	Prerequisites: Admission to		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			diagnostic ultrasound in a hospital or clinical setting at the advanced beginner level. Ongoing reinforcement and broadening of knowledge base related to hospital procedures and policies. Continued observation, assistance and performance of patient care and sonographic duties under moderate supervision.	Diagnostic Medical Sonography program.			
DMS210	Concepts of Vascular Imaging		Vascular physics and terminology. Application of imaging concepts to arterial, venous, and cerebrovascular ultrasound. Normal, abnormal and pathologic states of human vascular anatomy. Review and demonstration of selected scanning protocols to include extremity and cerebral vascular systems.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 2.0 2.0 2.0
DMS210LL	Concepts of Vascular Imaging Laboratory		Application of diagnostic concepts to arterial, venous, and cerebrovascular vasculature. Normal human vascular anatomy. Demonstration of selected scanning protocols to include extremity and visceral vascular systems.	Prerequisites: A grade of C or better in DMS210 or Corequisites: DMS210.		Occ	LAB 1.0 3.0 3.0
DMS220	Sectional Anatomy	DMI220 ICE220	Sectional human anatomy in the transverse, sagittal and coronal planes. Emphasis on the brain, neck, chest, abdomen and pelvic cavity.	Prerequisites: (BIO160 or BIO201) and (HCC145 or HCC146), or a graduate of a related medical program of study or currently registered as a technologist in radiography,		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				nuclear medicine, radiation therapy or sonography OR Admission to the Medical Radiography Program or permission of Instructor.			
DMS225	High Risk Obstetric/Gynecology Sonography		Sonographic overview of the female reproductive system. High risk intervention and tests related to sonography. Normal and abnormal sonographic presentations of the uterus and fetus in pregnancy.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 1.0 1.0 1.0
DMS230	Introduction to Echocardiography		Anatomy and physiology of the heart. Normal, abnormal and pathologic states of cardiac anatomy as it relates to diagnostic sonography. Demonstration of scanning techniques in echocardiography.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 1.0 1.0 1.0
DMS235	Ultrasound Breast Imaging		Ultrasound imaging of the breast. Includes terminology, technique, physics and instrumentation. Breast anatomy, physical examination and procedure findings. Pathology and correlation with other imaging modalities.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 1.0 1.0 1.0
DMS240	Ultrasound Case Studies: Part II		Medical terminology, anatomy, physical principles, and technology for determining proper technical factors. Anatomical variants, normal, and pathological sonographic findings in diagnostic ultrasound case presentations.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 2.0 2.0 2.0
DMS241	Ultrasound Case Studies: Part III		Medical terminology, anatomy, physical principles, and	Prerequisites: Admission to Diagnostic		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technology for determining proper technical factors. Anatomical variants, normal, and pathological sonographic findings in diagnostic ultrasound case presentations.	Medical Sonography program.			
DMS245	Neurosonography		Neuroanatomy and neurosonography of the brain and spinal cord.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 1.0 1.0 1.0
DMS250	Musculoskeletal Sonography and Small Parts		Normal sonographic human anatomy in sagittal, transverse, oblique, coronal planes. Emphasis on musculoskeletal imaging, and small parts.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	L+L 2.0 2.0 2.0
DMS252	Musculoskeletal Procedures I		Ultrasound terminology and physics. Anatomical variants, normal, and pathological sonographic findings in musculoskeletal diagnostic ultrasound of the upper extremity.	Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director.		Occ	L+L 4.0 6.0 6.0
DMS254	Musculoskeletal Procedures II		Ultrasound terminology and physics. Anatomical variants, normal, and pathological sonographic findings in musculoskeletal diagnostic ultrasound of the lower extremity.	Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director.		Occ	L+L 4.0 6.0 6.0
DMS255	Pediatric Sonography		Ultrasound imaging of the pediatric population. Includes terminology, technique, physics and instrumentation. Embryology, anatomy, physical examination and procedure findings. Pathology and correlation with other imaging modalities.	Prerequisites: Admission to Diagnostic Medical Sonography Program, or Registered Diagnostic Medical Sonographer (RDMS) credentialed with permission from Program Director.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
DMS261	Clinical Practicum IV-AA		Technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the intermediate level. Reinforcement and broadening of knowledge base related to hospital procedures and policies. Observation, assistance and performance of patient care and sonographic duties under limited supervision.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 2.0 10.0 0.0
DMS262	Clinical Practicum IV-AB		Development of technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the intermediate level. Ongoing reinforcement and broadening of knowledge base related to hospital procedures and policies. Continued observation, assistance and performance of patient care and sonographic duties under limited supervision.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 2.0 10.0 0.0
DMS263	Vascular Clinical Practicum I		Technical and professional aspects of diagnostic vascular ultrasound in a hospital or clinical setting at the intermediate level. Reinforcement and broadening of knowledge base related to hospital procedures and policies. Observation, assistance and performance of patient care and vascular sonographic duties under limited supervision.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 2.0 10.0 0.0
DMS265	Musculoskeletal Clinical Practicum		Musculoskeletal Clinical Practicum of 240 hours in healthcare setting Ultrasound imaging	Prerequisites: Admission to Diagnostic Medical		Occ	LAB 4.0 24.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			instrumentation, protocol implementation and positioning techniques. Application of Ultrasound safety, quality control procedures and effective patient care and communication skills.	Sonography program or permission of the Program Director.			
DMS267	Musculoskeletal Case Studies		Medical terminology, anatomy, physical principles, and technology for determining proper technical factors. Anatomical variants, normal, and pathological sonographic findings in musculoskeletal diagnostic ultrasound case presentations.	Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director.		Occ	LEC 1.0 1.0 1.0
DMS270	Clinical Practicum V-AA		Technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the advanced level. Clinical diagnostic experiences in routine/high risk obstetrics, pelvic, vascular, abdominal and small parts scanning.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 2.0 10.0 0.0
DMS271	Clinical Practicum V-AB		Development of technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the advanced level. Continued opportunity for clinical diagnostic experiences in routine/high risk obstetrics, pelvic, vascular, abdominal and small parts scanning. Focus on progression to independent level of function.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 2.0 10.0 0.0
DMS272	Clinical Practicum V-AC		Culminating clinical practice course with application of theoretical and practical concepts related to diagnostic ultrasound. Emphasis on independent performance of all clinical diagnostic	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			procedures including routine/high risk obstetrics, pelvic, vascular, abdominal and small parts scanning.				
DMS273	Vascular Clinical Practicum II		Development of technical and professional aspects of diagnostic vascular ultrasound in a hospital or clinical setting at the advanced level. Continued opportunity for clinical diagnostic experiences in routine/complex vascular scanning. Focus on progression to independent level of function.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LAB 2.0 10.0 0.0
DMS281	Ultrasound Registry Preparation Seminar: Physics and Instrumentation		Intensive review of major content measured in the American Registry for Diagnostic Medical Sonography certification examination. Physics and instrumentation in ultrasound technology.	Prerequisites: Admission into the Diagnostic Medical Sonography program or permission of the Program Director.		Occ	LEC 1.0 1.0 1.0
DMS282	Ultrasound Registry Preparation Seminar: Abdominal and Small Parts Imaging		Intensive review of major content measured in the American Registry for Diagnostic Medical Sonography certification examination. Specialties of abdominal and small parts imaging.	Prerequisites: Admission into the Diagnostic Medical Sonography program or permission of the Program Director.		Occ	LEC 1.0 1.0 1.0
DMS283	Ultrasound Registry Preparation Seminar: Obstetrics and Gynecology		Intensive review of major content measured in the American Registry for Diagnostic Medical Sonography certification examination for obstetrics and gynecology.	Prerequisites: Admission into the Diagnostic Medical Sonography program or permission of the Program Director.		Occ	LEC 1.0 1.0 1.0
DMS284	Ultrasound Registry Preparation: Vascular Imaging		Anatomy and physiology of the vascular system. Testing parameters and methods for vascular examinations. Scan protocol for sonographic	Prerequisites: Admission into the Diagnostic Medical Sonography		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			evaluation of head and neck, extremities, upper abdomen and pelvis vasculature. Interpret scans and special cases.	program or permission of the Program Director.			
DMS285	Intermediate Vascular Technology		Sonographic evaluation of the upper and lower peripheral vascular system and the cerebrovascular system. Normal and pathologic sonographic imaging and Doppler evaluation of the venous, arterial systems of the upper and lower extremities, and intra and extracranial vessels.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 2.0 2.0 2.0
DMS286	Advanced Vascular Technology		Vascular evaluation of the abdominal vicera and small parts. Normal and pathologic sonographic imaging and Doppler evaluation of the venous and arterial systems of the abdominal organs and small body parts. Capabilities, limitations, protocols and techniques required for diagnosis of the systemic, hepatoportal, and collateral systems, and extremities. Preoperative mapping of the radial, mammary, and epigastric arteries.	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 2.0 2.0 2.0
DMS286LL	Advanced Vascular Technology Laboratory		Laboratory experience in support of DMS286.	Prerequisites: A grade of C or better in DMS286 or Corequisites: DMS286.		Occ	LAB 1.0 3.0 3.0
DMS290	Advanced Medical Ultrasound Procedures		Presentation of advanced topics in sonography including state of the art equipment. Superficial organs, heart and vessels, neurosonography, musculoskeletal, intraoperative, and interventional procedures. Aseptic	Prerequisites: Admission to Diagnostic Medical Sonography program.		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technique, medical-legal and patient record keeping and image acquisition for performance of advanced sonographic examinations.				
DMS295	Stress Echocardiography		Anatomy and physiology of the heart. Normal and stressed states of cardiac anatomy as it relates to diagnostic sonography. Performance of stress echocardiography exam. Pharmacological agents used in stress echocardiography.	Prerequisites: Completion of echocardiography program, or Registered Diagnostic Cardiac Sonographer (RDCS), or Registered Diagnostic Medical Sonographer (RDMS), or Registered Cardiac Sonographer (RCS) credentials.		Occ	L+L 2.0 3.5 3.5
ECE102	Engineering Analysis Tools and Techniques		Learning culture of engineering, engineering use of computer tools, and computer modeling as applied to engineering analysis and design.	Prerequisites: A grade of C or better in MAT15+ or higher-level mathematics course, or an appropriate District placement above MAT15+, or permission of Instructor or Division or Department Chair.		Acad	L+L 2.0 4.0 4.0
ECE103	Engineering Problem Solving and Design		Fundamentals of the design process: engineering modeling, communication and problem-solving skills in a team environment. Emphasis on process-based improvements to the design process. Introduction to	Prerequisites: A grade of C or better in ECE102 or permission of Instructor or Division or Department Chair.	Student may receive credit for only one of the following: ECE103 or ECE103EP.	Acad	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			engineering as a profession.				
ECE103EP	Engineering Problem Solving and Design (with EPICS projects)		Fundamentals of the design process: engineering modeling, communication and problem-solving skills in a team environment. Emphasis on process-based improvements to the design process. Introduction to engineering as a profession.	Prerequisites: A grade of C or better in ECE102 or permission of Instructor.	ECE103EP students may receive credit for only one of the following: ECE103 or ECE103EP.	Acad	L+L 2.0 4.0 4.0
ECE104	EPICS Gold I		EPICS Gold is the first of a sequence of two two-credit service learning courses in which EPICS teams are formed from students potentially representing all engineering, computer science, and construction disciplines, as well as other majors, including sustainability, business, liberal arts, sciences, and others.	Prerequisites: None.	Students who complete this course and transfer to ASU may participate in the upper division EPICS classes following this introductory class, which may include continuation of the project from this class or different projects. Student participation for multiple consecutive semesters on a project is encouraged . ECE104 may be repeated for a total of four (4) credit hours.	Acad	L+L 2.0 2.0 2.0
ECE105	MATLAB Programming		Use MATLAB to solve engineering problems. An overview of programming, including matrices, structures,	Prerequisites: A grade of C or better in [(MAT150 or MAT151 or		Acad	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			strings, functions, control flow, file management, data analysis, graphing capabilities, and mathematical calculations.	MAT152 or MAT155 or MAT156) and MAT182] or MAT187 or higher level mathematics course or permission of Instructor or Division or Department Chair.			
ECE106	Survey of Nanotechnology		Reading and discussion on topics in nanotechnology. Includes key issues in the development of nanoscale engineering	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECE111	Bioengineering Systems		Introduction to biological concepts and application of engineering to biological and earth systems. Analysis of materials, structures, fluid mechanics, bioelectricity, and dynamics as applied to biological and environmental systems	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0
ECE150	Exploring Engineering and its Impact on Society		Introduction to the profession of engineering and its impact on culture and society.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ECE205	Introduction to Mining Engineering		Introduction to the process of mineral and metal extraction. From location, design, operation to reclamation of a mine site.	Prerequisites: A grade of C or better in ECE102.		Acad	LEC 3.0 3.0 3.0
ECE211	Engineering Mechanics-Statics		Modeling of static equilibrium in particles and rigid bodies through analysis of forces and mechanical properties.	Prerequisites: A grade of C or better in PHY115 or PHY121 or permission of Instructor or Division or Department Chair.		Acad	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Corequisites: MAT230 or MAT231 or permission of Instructor or Division or Department Chair.			
ECE212	Engineering Mechanics-Dynamics		Modeling of dynamic motion in particles and rigid bodies through kinetics and kinematics. Work and energy principles; impulse and momentum principles; planar kinematics; equations of motion; conservation of energy and momentum.	A grade of C or better required in all Prerequisites. Prerequisites: [ECE211 and (PHY115 or PHY121)] or permission of Instructor or Division or Department Chair. Prerequisites or Corequisites: MAT240 or MAT241 or permission of Instructor or Division or Department Chair.		Acad	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0
ECE214	Engineering Mechanics		Foundations of engineering mechanics, including force systems, resultants, equilibrium of particles and rigid bodies, centroids and centers of mass, area and mass moments of inertia, friction, internal forces in structures, kinematics and kinetics of particles, kinematics and kinetics of rigid bodies, energy and momentum principles.	Prerequisites: A grade of C or better in (ECE103 or ECE103AB or ECE103EP) and (MAT230 or MAT231) and (PHY115 or PHY121). Corequisites: MAT240 or MAT241.		Acad	LEC 4.0 4.0 4.0 LAB 0.0 2.0 2.0
ECE215	Mechanics of Materials		Designed to provide students with a strong fundamental foundation in the mechanics of solids. Includes the concepts of stress and strain applied to the analysis and design of members subjected to axial and torsional loads	Prerequisites: A grade of C or better in (ECE211 or ECE214).		Acad	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and members subjected to shear and bending, applications and transformation of plane stress and plane strain, deformation of beams, and elastic buckling of columns.				
ECE216	Computer-Aided Engineering		Introduction to engineering graphics, including tolerancing and fasteners, as well as creation and use of engineering drawings.	Prerequisites: A grade of C or better in ECE103, or ECE103EP, or permission of Instructor. Corequisites: ECE216LL.		Acad	LEC 2.0 2.0 2.0
ECE216LL	Computer-Aided Engineering Laboratory		Laboratory experience in support of ECE216.	Prerequisites: A grade of C or better in ECE103, or ECE103EP, or permission of Instructor. Corequisites: ECE216.		Acad	LAB 1.0 2.0 2.0
ECE230	Introduction to the Chemical Engineering Process		Introduces fundamental skills and principles needed to analyze the industrial processes of importance to the chemical engineering profession.	Prerequisites: A grade of C or better in CHM152 and MAT231.	ECE230 course is designed for chemical engineering students.	Acad	L+L 3.0 5.0 5.0
ECE231	Introduction to Fluid Transport Phenomena		Fundamental skills and principles of fluid transport on both macroscopic and microscopic scales using mass balances, momentum balances and energy balances to analyze and/or design fluid systems of interest in the chemical engineering profession.	Prerequisites: A grade of C or better in MAT271 and PHY121.		Acad	L+L 3.0 5.0 5.0
ECE280	Foundational Statistics for Engineers	MAT280	Fundamentals of probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, regression analysis, analysis of variance, and design of experiments.	Prerequisites: A grade of C or better in MAT220, or MAT221, or equivalent.		Acad	L+L 3.0 5.0 5.0
ECE285	Introduction to Astrodynamics	AST285 PHY285	Introduction to celestial mechanics and the	Prerequisites: A grade of C		Acad	LEC 4.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			dynamics of spacecraft navigation. Introduction to rocket propulsion and spacecraft design. Orbital and interplanetary celestial mechanics and maneuvers. Astrophysics and characteristics of the space environment. Lab is project-based, utilizing a real-time spacecraft simulation environment.	or better in ENG101 and (PHY115 or PHY121).			LAB 0.0 3.0 3.0
ECE294	Special Topics in Engineering		Exploration and investigation of a focused topic in engineering.	Prerequisites: Permission of Instructor or Department or Division Chair.	ECE294 may be repeated for credit.	Acad	L+L 3.0 3.0 3.0
ECE294AA	Special Topics in Engineering		Exploration and investigation of a focused topic in engineering.	Prerequisites: Permission of Instructor or Department or Division Chair.	ECE294AA may be repeated for credit.	Acad	L+L 2.0 2.0 2.0
ECE294AB	Special Topics in Engineering		Exploration and investigation of a focused topic in engineering.	Prerequisites: Permission of Instructor or Department or Division Chair.	ECE294AB may be repeated for credit.	Acad	L+L 1.0 1.0 1.0
ECE294AC	Special Topics in Engineering		Exploration and investigation of a focused topic in engineering.	Prerequisites: Permission of Instructor, or Department or Division Chair.	ECE294AC may be repeated for credit.	Acad	L+L 0.5 0.5 0.5
ECE296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ECE296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
ECE296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to	Prerequisites: Completion of at least twelve (12) college credits		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the career objectives of the students.	minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ECE296WD	Cooperative Education		Prerequisites: Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				interest or with permission of the Instructor.			
ECE297WA	Engineering Internship		Supervised work experience in engineering environment. Includes experience working with engineers or technicians, related to troubleshooting, system design, or other processes. Also includes experiences in problem solving, working as a team, soft skills, time and resource management; and exposure to specific processes.	Prerequisites: Permission of Instructor or Division Chair or Department Chair.		Acad	LAB 1.0 5.0 0.0
ECE297WB	Engineering Internship		Supervised work experience in engineering environment. Includes experience working with engineers or technicians, related to troubleshooting, system design, or other processes. Also includes experiences in problem solving, working as a team, soft skills, time and resource management; and exposure to specific processes.	Prerequisites: Permission of Instructor or Division Chair or Department Chair.		Acad	LAB 2.0 10.0 0.0
ECE297WC	Engineering Internship		Supervised work experience in engineering environment. Includes experience working with engineers or technicians, related to troubleshooting, system design, or other processes. Also includes experiences in problem solving, working as a team, soft skills, time and resource management; and exposure to specific processes.	Prerequisites: Permission of Instructor or Division Chair or Department Chair.		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ECE297WD	Engineering Internship		Supervised work experience in engineering environment. Includes experience working with engineers or technicians, related to troubleshooting, system design, or other processes. Also includes experiences in problem solving, working as a team, soft skills, time and resource management; and exposure to specific processes.	Prerequisites: Permission of Instructor or Division Chair or Department Chair.		Acad	LAB 4.0 20.0 0.0
ECE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Instructor, or Department or Division Chair.		Acad	LAB 1.0 1.0 0.0
ECE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Instructor, or Department or Division Chair.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ECE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Instructor, or Department or Division Chair.		Acad	LAB 3.0 3.0 0.0
ECG100	Introduction to Healthcare: Medical, Legal, Ethics		This course is designed to offer the student a foundation in allied health career skills. Students will demonstrate knowledge of the healthcare delivery system, health occupations, basic infection control procedures, Health Insurance Portability and Accountability Act (HIPAA) guidelines, and the general laws and ethical responsibilities of healthcare workers. Students will learn to handle emergency situations, practice safety and security procedures, build interpersonal communication skills as well as define the roles and responsibilities of an electrocardiogram (ECG) technician. Students will learn medical terminology used in healthcare, with special care populations and in special services. Body systems approach to terms related to structures, functions, diseases, procedures and diagnostic tests.	Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101.		CLK	25

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling.				
ECG101	The Cardiovascular System: Anatomy & Physiology and Pathophysiology of Cardiovascular Disease		In this course, students will explore the structure and functions of the cardiovascular system. This course covers the anatomical structures of the heart, the composition of blood, the path of the blood through the heart, and the electrical conduction system. Students will learn how these systems act as one to supply vital oxygen, nutrients and hormones to tissues and remove carbon dioxide and metabolic waste products. This course also covers pathophysiologic concepts and interventions for patients with heart and coronary vessel disease and disorders such as coronary artery disease (CAD), angina pectoris, myocardial infarction (MI), congestive heart failure (CHF), dysrhythmias, inflammatory processes and valvular heart disease.	Prerequisites: ECG100.		CLK	30
ECG102	Introduction to ECG		Students will learn the fundamentals of electrocardiography. Students will be able to describe the electrophysiologic basis of cardiac arrhythmias, illustrate the electrical conduction system through the heart, and the process of recording an electrocardiogram (ECG). Students will learn how to acquire 3-lead ECG, 4-lead ECG,	Prerequisites: ECG101.		CLK	40

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			12-lead ECG and interpret rhythm strips.				
ECG103	Applied ECG: Atrial, Junctional, Ventricular Rhythms and Heart Blocks		Students will learn to recognize arrhythmias that originate within the atria, the ventricle, the AV junction, AV node as well as heart blocks. Students will identify the specific features of each arrhythmia, where it originates from and diseases associated with each.	Prerequisites: ECG102.		CLK	50
ECG104	Advanced Cardiac Life Support		Designed for the allied healthcare provider who initiates, directs, or participates in the management of cardiopulmonary arrest and other cardiovascular emergencies. Provides the allied healthcare provider with the knowledge and skills to recognize and manage cardiopulmonary arrest, acute arrhythmia, stroke, and acute coronary syndromes (ACS) according to current advanced emergency cardiovascular care (ECC) guidelines. Requires prior knowledge of basic electrocardiograph rhythm interpretation, pharmacologic agents, and other interventions used in advanced cardiac life support (ACLS). Upon completion of this course, students will be eligible to take the American Heart Association's (AHA's) Basic Life Support (BLS) and ACLS certification examinations.	Prerequisites: ECG103.		CLK	20
ECG105	Advanced ECG: Diagnostic Procedures, Certification Prep and Exam		In this course, students will learn the skills and knowledge to perform patient assessments, obtain vital signs, start	Prerequisites: ECG104.		CLK	80

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			<p>IVs and conduct blood draws. Students will learn how to attach a Holter monitor to produce a diagnostic trace and analyze the trace following the monitoring process. Students will also learn how to conduct clinical exercise stress tests utilizing exercise electrocardiography for patients with known or suspected coronary artery disease. In this course, students will also learn how to conduct telemetry monitoring while in a hospital setting and assess and evaluate pacemakers. Diagnostic testing procedures will be performed within a prescribed range of functions involving routine and non-routine methods as well as diagnostic procedures which require the exercise of some discretion and judgment. Prior to completion of this course, students will have completed an exam prep course and taken the Certified ECG Technician (CET) Exam by the National Healthcareer Association (NHA). The exam is a 100-question exam and students will have 2 hours to complete it. The exam is timed and proctored.</p>				
ECG106	Clinical Practicum		<p>This course serves as the clinical practicum for Electrocardiogram (ECG) Technician in which the students synthesize standard of care and scope of practice through diagnostic technology, patient assessment, patient advocacy, ethical</p>	<p>Prerequisites: 1. ECG105 2. Background check requirements in compliance with the Maricopa County Community College</p>		CLK	80

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and professional behaviors, critical thinking and decision making while in the healthcare industry setting. Mandatory attendance for all 80 hours is required for successful completion.	District Supplemental Background Check Policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 4. Complete and submit the Allied Health Student Health and Safety Documentati on Checklist, with included documentati on. 5. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentati on.			
ECH125	Writing for Early Childhood Professionals		Elements of effective written communication and use in the field of early childhood education. Practical experience using	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			common classroom documents. Course surveys document purpose, readers needs, information organization, and clear expression of ideas.				
ECH128	Early Learning: Play and the Arts		Examines theory, research and practices relating to play and the creative arts in early childhood. Considers practical constraints and alternative perspectives.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ECH140	Learning Made Visible Through Documentation		The study of documentation in early childhood environments including strategies to reflect on children's thinking, hypothesis development, and the multiple relationships essential in the learning environments.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH141	Explore the Fundamentals of the Reggio Emilia Approach		Investigation and critically examination of the integral elements of the organization and philosophy of the Reggio Emilia approach to early childhood education.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH176	Child Development	CFS176	Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
ECH183	Infant/Toddler Learning Materials		Safety and design features of commercial, homemade, and household learning materials for children from birth through 30 months of age. Focus on matching items with children's developmental levels.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH190	Emergent Language and Literacy		Analyzing, assessing, and enhancing language and literacy development for the young child.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ECH236	Learning Materials for Young Children		Design aspects of traditional early	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			childhood play materials examined for teaching/learning potential. Includes design, production, and field-testing of teacher-made devices.				
ECH238	Computers in Early Childhood		Comparison of computers as a teaching device with traditional early childhood learning materials. Hands-on experience with child/computer interaction and software evaluation.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH253	National Credential Portfolio Development		Portfolio or resource file development, completion, and presentation. Self-assessment and credentialing planning, professional development, writing, and critical learning included.	Prerequisites: Permission of Program Director.		Acad	LEC 3.0 3.0 3.0
ECH267	Child Development Associate Preparation Practicum I		Participation in early childhood education related work experience for the purpose of final preparation for the Child Development Associate (CDA) national credential process.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH268	Child Development Associate Preparation Practicum II		Participation in early childhood education related work experience for the purpose of final preparation for the Child Development Associate (CDA) national credential process.	Prerequisites: A grade of C or better in (CFS178, or CFS194AB, or CFS192, or CFS193), and (CFS/ECH287, or CFS278, or CFS196), and ECH270, and (CFS/ECH176 or CFS205).		Acad	LEC 1.0 1.0 1.0
ECH269	Child Care Seminar	CFS269	Emphasizes the blend of job-related activities including career exploration, employment procedures, human	Prerequisites: Permission of Department or Division.	CFS/ECH269 may be repeated for a total of three (3)	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			relations, and on-the-job issues.		credit hours.		
ECH270	Observing Young Children		Introduction to techniques of observing young children. Recording methods, interpretation and use of collected information including legal and ethical implications.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH271	Arranging the Environment	CFS271	Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH272	Science for the Young Child		Methods and techniques for encouraging beginning scientific thinking among young children. Focus upon the theory of Jean Piaget.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH273	Math for the Young Child	CFS273	Methods and techniques for encouraging the beginnings of mathematical/logical thought with young children. Focus upon the theory of Jean Piaget.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH274	Books and Verse for the Young Child		Introduction to verse, storytelling, books and bookmaking for infants, toddlers, and preschoolers. Information as well as storybooks considered.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH275	Literacy Development and the Young Child	CFS275	Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, writing, and reading in the home and classroom.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH279	Early Childhood Curriculum Development		An intensive focus on the process of building curriculum units appropriate to the developmental needs and abilities of the young child. Design, use and	Prerequisites: None.	ECH279 may be repeated for a total of four (4) credit hours.	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			evaluation of materials and activities.				
ECH280	Food Experiences with Young Children		A discussion of the nutritional needs of young children and the cultural and social meanings of foods, feeding and eating. Includes planning and managing food experiences in home and group settings.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH281	Movement/Music for the Young Child		Consideration of motor development in the toddler through the 8-year-old and exploration of age-appropriate rhythmic, musical and creative movement methods.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH282	Discipline/Guidance of Child Groups		Exploration of techniques for guiding children in groups with focus on individual child and adult needs for a disciplined environment.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH284AA	Early Childhood Teaching Internship	CFS284A A	Work experience in child care centers. 80 hours of designated work per credit.	Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division.	CFS/ECH284AA may be repeated for a total of six (6) credit hours.	Acad	L+L 1.0 1.0 0.0
ECH284AB	Early Childhood Teaching Internship	CFS284A B	Work experience in child care centers. 80 hours of designated work per credit. Maximum of 6 credits allowed.	Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division. Corequisites: CFS/ECH269		Acad	L+L 3.0 3.0 3.0
ECH287	Professional Development in Early Childhood Education	CFS287	Emerging professionalism within the field of early childhood education. Consideration of job responsibilities, rewards, ethics and current issues facing practitioners. Includes assessment and career planning.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ECH288	Community Resources and Referral		Survey of current community agencies, resources, and support groups for a variety of child and family needs. Considers appropriate procedures for referral, handling of information, confidentiality and follow up.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ECH298AA	Special Projects	EDU298A A	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
ECH298AB	Special Projects	EDU298A B	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
ECH298AC	Special Projects	EDU298A C	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
ECN100	Economics in American Society		Selected principles of macroeconomic and microeconomic analysis. Recommended as a social science elective and for some paraprofessional programs. Not for business transfer students; credit will not be granted if ECN111 or ECN112 has been completed	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ECN105	Consumer Economics		The relationship between the consumer and the economy in American society. Socioeconomic forces that impact on consumer purchases, debt, and budgeting. Consumerism as a movement	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ECN160	Economic History of the United States		A description of the trends of American population, industry, and wealth through examination of major American institutions, historical events, and economic thought. Emphasis on the roles of technology and natural resources in agriculture and industry, the labor force, the monetary system, market structures, and the economic impact of government	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
ECN204	Macroeconomic Issues		Macroeconomic principles applied to current problems of economic policy, e.g., inflation, unemployment, gross national product	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			(GDP), forecasting, ramifications for the international system.				
ECN208	Microeconomic Issues		Microeconomic principles applied to current problems of market structure, consumer preference, supply and demand, and the theory of the firm. Topics will include contemporary events that are suitable for application of the economic way of thinking.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ECN211	Macroeconomic Principles		A descriptive analysis of the structure and functioning of the American economy. Emphasis on basic economic institutions and factors that determine national income and employment levels. Consideration given to the macroeconomic topics of national income, unemployment, inflation and monetary and fiscal policies.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ECN212	Microeconomic Principles		Microeconomic analysis including the theory of consumer choice, price determination, resource allocation and income distribution. Includes non-competitive market structures such as monopoly and oligopoly; and the effects of government regulation.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ECN213	The World Economy		An analysis of the economic interdependence among nations, with emphasis on international trade and finance. Consideration given to the role and function of the multinational enterprise	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral	Acad	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Sciences - [SB]		
ECN250	World Economic Systems		A descriptive analysis of capitalist, socialist and mixed economies. Some consideration also given to the problems of less developed economies	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	L+L 3.0 3.0 3.0
ECN263	The Economics of Natural Resources, Population and the Environment		Applies economic analysis to both the causes and possible remedies of environmental deterioration and natural resource depletion. Includes discussion of the economic problems of urban communities and the relationship between population and economic growth and the depletion of natural resources and environmental pollution	Prerequisites: A grade of C or better in ECN100 or ECN211 or ECN2112.		Acad	LEC 3.0 3.0 3.0
ECN296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites:		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ECN296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
ECN296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ECN296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
ECN298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
ECN298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
ECN298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
EDT100	Introduction to Endoscopy		Interpret endoscopy technology purpose, design, and structure. Basic understanding of the history and advancement of endoscopic procedures; anatomy of flexible endoscopes; role and importance of endoscopy technicians; introductory endoscopy reprocessing; regulating agencies and professional endoscopy organizations impacting the current field of endoscopy.	Prerequisites: None. Corequisites: EDT101, EDT102, EDT105, or permission of Program Director.		Occ	L+L 1.0 1.0 1.0
EDT101	Microbiology and Infection Control in Endoscopy		Identify and review the basic concepts of microbiology and microorganisms affecting endoscopic reprocessing and procedures. Indicate the requirements for all endoscopic work areas and staff to properly insure asepsis and best patient outcomes.	Prerequisites: None. Corequisites: EDT100, EDT102, EDT105, or permission of Program Director.		Occ	LEC 1.0 1.0 1.0
EDT102	Fundamentals of Endoscope Care and Handling		Learn the fundamentals of endoscope care and handling including cleaning, decontamination, testing, and preparation for disinfection and sterilization.	Prerequisites: None. Corequisites: EDT100, EDT101, EDT105, or permission of Program Director.		Occ	L+L 3.0 3.0 3.0
EDT105	Advanced Endoscopy Care and Handling		Learn advanced endoscope care and handling including recordkeeping, transport, manual and mechanical high-level disinfection and storage of rigid, semi-rigid, and flexible endoscopes.	Prerequisites: None. Corequisites: EDT100, EDT101, EDT102, or permission of Program Director.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EDT200	Clinical Practicum		Direct preceptor supervision of students applying knowledge from the Endoscopy program to include communication, policy and procedures, aseptic and sterile technique, endoscopy instruments, trays and packs, sterilization equipment, documentation, and patient assistance performed in the clinical environment.	Prerequisites: A grade of C or better in (EDT100 and EDT101 and EDT102 and EDT105) or permission of Program Director. Corequisites: EDT201 or permission of Program Director.		Occ	LAB 3.0 22.5 0.0
EDT201	Endoscopy Procedures		Roles and responsibilities of endoscopy room personnel focusing on the endoscopy technician under the direction of the clinical facility preceptor demonstrating the role of the endoscopy technician and scope of practice and standard of recommendations.	Prerequisites: A grade of C or better in (EDT100 and EDT101 and EDT102 and EDT105) or permission of Program Director. Corequisites: EDT200 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
EDU101AA	Tutor Training and Practicum		Tutor training with an opportunity to gain insights into instructional support services through a minimum of 30 hours of supervised on-site experience within an educational setting. Overview of the role and responsibilities of instructional tutors as well as tutoring techniques, with particular focus on reading and writing strategies	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
EDU110	Education in Film		Analysis of the portrayal of teaching, schooling and learning in mass media films, including documentary, feature length and emerging platforms. Considers historical, cultural, national and global perspectives on	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			teaching, learning and schooling. Emphasis on identifying factors that contribute to successes as well as failures of schooling within a society.				
EDU115	Digital Literacy for Teaching and Learning in Education	EED115	Overview of digital literacy for identifying the skills needed to become informed users of technology to communicate, instruct, create and think critically with digital tools. Explores how emerging technologies are used to teach and learn across varied educational environments (face-to-face, hybrid, online, etc). Includes skills focused on basic computer operations, productivity software, digital citizenship, instructional practices, information literacy and family and professional partnerships. Discusses current trends and related issues about the use of technology and its impacts in P20 education.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EDU204	Fine Arts in Educational Settings		Exploration of fine arts integration in the K-12 classroom setting. Focus on the impact on life-long learning and education goal achievement when curriculum includes fine arts. Arizona art standards of dance, visual, theater and music also covered.	Prerequisites: Formal acceptance to a Maricopa Community College undergraduate state approved teacher preparation program or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EDU220	Introduction to Serving English Language Learners (ELL)		Historical overview of current educational and legal issues for serving English Learners (EL). Comparison and evaluation of various	Prerequisites: None.	Approved school-based practicum is required. EDU220	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			types of language educational models including Structured English Immersion (SEI), Sheltered English Instruction, and bilingual/Dual Language Immersion (DLI). Includes SEI, Sheltered English Instruction, and bilingual/DLI strategies.		incorporate s the 45-clock hour curricular framework for SEI endorseme nt through the Arizona Department of Education.		
EDU221	Introduction to Education		Overview of the historical, political, economic, social, and philosophical factors that influence education and make it so complex. Opportunity for students to assess their interest and suitability for teaching .	Prerequisites: None.	EDU221 requires a minimum of 30 hours of field experience in elementary or secondary classroom environmen t. Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
EDU222	Introduction to the Exceptional Learner		Overview of the exceptional learner with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations. Issues related to mild disabilities, severe disabilities, emotional and behavioral disorders, intellectual disabilities, and students who are gifted.	Prerequisites: None.	EDU222 requires an approved field experience. Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
EDU223AA	Emotional Disabilities in the Classroom		Investigation into the characteristics of and teaching strategies for students with emotional	Prerequisites: Baccalaureat e Degree and formal	EDU223AA requires an approved	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			disabilities. Emphasis on Professional Teaching Standards. Includes current research findings related to teaching students with emotional disabilities.	admission to a state approved post-baccalaureat e teacher preparation program and a grade of C or better in EDU222.	field experience.		
EDU223AB	Learning Disabilities in the Classroom		Investigation into the characteristics of and teaching strategies for students with learning disabilities. Emphasis on Professional Teaching Standards. Includes current research findings related to teaching students with learning disabilities.	Prerequisites: Baccalaureat e Degree and formal admission to a state approved post-baccalaureat e teacher preparation program and a grade of C or better in EDU222.	EDU223AB requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU223AC	Mild and Moderate Intellectual Disability in the Classroom		Investigation into the characteristics of and teaching strategies for students with mild and moderate intellectual disability. Emphasis on Professional Teaching Standards.	Prerequisites: Baccalaureat e Degree and formal admission to a state approved post-baccalaureat e teacher preparation program and a grade of C or better in EDU222.	EDU223AC requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU223AD	Physical and Other Health Impairments in the Classroom		Investigation into the characteristics of and teaching strategies for students with physical and other health impairments. Emphasis on Professional Teaching Standards. Includes current research findings related to teaching students with physical and other health impairments.	Prerequisites: Baccalaureat e Degree and formal admission to a state approved post-baccalaureat e teacher preparation program and a grade of C or better in EDU222.	EDU223AD requires an approved field experience.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EDU223AF	Assessment and Eligibility in Special Education		A basic overview of eligibility requirements for special services of students with disabilities, as well as investigation into the concepts, laws, issues, and procedures that relate to the formal and informal assessment of students with disabilities. Covers educational achievement tests and standardized diagnostic tests for students with disabilities as well as intelligence and adaptive behavior measurements. Includes current research findings related to assessing students with special needs and how assessment is used to inform and guide instruction.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.		Acad	LEC 3.0 3.0 3.0
EDU224	Brain Development and Learning		Exploration of fine arts integration in the K-12 classroom setting. Focus on the impact on life-long learning and education goal achievement when curriculum includes fine arts. Arizona art standards of dance, visual, theater and music also covered.	Prerequisites: Formal acceptance to a Maricopa Community College undergraduate state approved teacher preparation program or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EDU225	Professionalism and Ethics in Education		Exploration of topics relative to the professionalism, legal knowledge, and ethical development of classroom teachers. Topics include professionalism within the teaching profession, legal considerations, ethics vs. code of conduct, dispositions, and impact of personal and community values. Prepares individuals for the professional, legal,	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and ethical issues that are routinely seen in an educational setting.				
EDU230	Cultural Diversity in Education		Examination of the relationship of cultural values to the formation of self-concept and learning styles. Examination of the role of prejudice, stereotyping and cultural incompatibilities in education. Emphasis on teacher preparation (preservice and/or inservice) to offer an equal educational opportunity to students of all cultural groups	Prerequisites: None.	General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
EDU235	The Exceptional Learner		Overview of the exceptional learner, one who differs from the average or typical, with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations. Issues related to mildly disabled, severely disabled, emotionally and behaviorally disordered, intellectual disabilities, and gifted students. Includes current research findings related to teaching exceptional learners.	Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division.	EDU235 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU236	Classroom Relationships		Analysis of K-12 classroom interactions, classroom environment, and classroom management skills from a teacher's point of view. Focus on classroom as a multidimensional environment in which principles of classroom design, communication, management, and resources determine effectiveness.	Prerequisites: None. EDU221 suggested but not required.		Acad	LEC 3.0 3.0 3.0
EDU237	Grades K-8 Structured English Immersion		A foundation course designed to serve needs of English Learners (EL) grades K-8. Includes	Prerequisites: Formal admission to an		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			comparison and evaluation of various language educational models including Structured English Immersion (SEI) and the Arizona Language Development Approach with a focus on asset based behaviors and expectations, integrated and targeted English Language Development (ELD) instruction. Covers legal and historical foundations and current issues.	undergraduate educator preparation program or permission of Department or Division.			
EDU238	Grades 6-12 Structured English Immersion		A foundational course designed to serve needs of English Learners (EL) grades 6-12. Includes comparison and evaluation of various Structured English Immersion (SEI) models and the Arizona Language Development Approach including asset based behaviors and expectations, integrated and targeted English Language Development (ELD) instruction, assessment monitoring and feedback. Also covers legal and historical foundations and current issues.	Prerequisites: Formal admission to an undergraduate educator preparation program or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EDU239	Structured English Immersion Grades K-8		A foundation course designed to prepare educators to serve the needs of English Learners (EL) grades K-8. Includes Structured English Immersion (SEI) models and the Arizona Language Development Approach with emphasis on asset based behaviors and expectations, integrated and targeted English Language Development (ELD) instruction, assessment monitoring	Prerequisites: Baccalaureate Degree or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and feedback. Also covers legal and historical foundations and current issues.				
EDU240	Structured English Immersion Grades 6-12		A foundational course designed to serve needs of English Learners (EL) grades 6-12. Includes comparison and evaluation of various Structured English Immersion (SEI) models and the Arizona Language Development Approach including asset based behaviors and expectations, integrated and targeted English Language Development (ELD) instruction, assessment monitoring and feedback. Also covers legal and historical foundations and current issues.	Prerequisites: Baccalaureate Degree or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EDU241	Special Education: Language Development and Disorders		Language development and language acquisition of typical children and children with disabilities. Includes language characteristics of children with a variety of disabilities and the creation of enhanced learning experiences in the classroom. Covers the referral process, as well as augmentative and alternative communication tools. Also compares Language Disorders and Language Differences.	Prerequisites: Formal admission to an undergraduate teacher preparation program or permission of Department or Division.		Acad	LAB 2.0 2.0 2.0
EDU242	Language Developmental and Disorders		Language development and language acquisition of typical children and children with disabilities. Includes language characteristics of children with a variety of disabilities and the creation of enhanced learning experiences in the classroom. Covers the referral process, as	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program or		Acad	LAB 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			well as augmentative and alternative communication tools. Also compares Language Disorders and Language Differences.	permission of Department or Division.			
EDU243	Effective Collaboration and Communication Practices in Special Education		Principles of effective collaboration, consultation, and co-teaching to improve programs, services, and outcomes for individuals with exceptionalities and their families. Includes critical interpersonal communication strategies and tools for working with diverse groups of people in addition to the benefits of collaboration as well as the challenges that educators currently face.	Prerequisites: Formal admission to an undergraduate teacher preparation program or permission of Department or Division.		Acad	LAB 1.0 1.0 1.0
EDU244	Special Education Collaboration and Communication Practices		Principles of effective collaboration, consultation, and co-teaching to improve programs, services, and outcomes for individuals with exceptionalities and their families. Includes critical interpersonal communication strategies and tools for working with diverse groups of people in addition to the benefits of collaboration as well as the challenges that educators currently face.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program or permission of Department or Division.		Acad	LAB 1.0 1.0 1.0
EDU250	Teaching and Learning in the Community College		The history, functions, organization and current issues in the community/junior college with emphasis on the Arizona community colleges. Includes focus on the design and practice of effective community college teaching and learning with special emphasis on the Maricopa County Community College District	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EDU254	Education Internship		Teaching experience in PK-12 classroom setting. Required to work 120 hours. Supervised and evaluated by a faculty coordinator.	Prerequisites: Permission of Department or Division and admission into a post-baccalaureate teacher certification program.	EDU254 may be repeated for a total of three (3) credits with permission of Department or Division.	Acad	LAB 1.5 7.5 0.0
EDU255AA	Intern Certificate Student Teaching Lab Elementary Education		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district.		Acad	LAB 4.0 12.0 0.0
EDU255AB	Intern Certificate Student Teaching Lab Elementary Education		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU255AA and a minimum of 50% successful completion of all designated required course work.		Acad	LAB 4.0 12.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EDU255AC	Intern Certificate Student Teaching Lab - Elementary Education I		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district.		Acad	LAB 2.0 6.0 0.0
EDU255AD	Intern Certificate Student Teaching Lab - Elementary Education II		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU255AC and a minimum of 25% successful completion of all designated required course work.		Acad	LAB 2.0 6.0 0.0
EDU255AE	Intern Certificate Student Teaching Lab - Elementary Education III		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona		Acad	LAB 2.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes learner preparation, learner engagement, and learner outcome awareness.	Department of Education approved college program the partnering school district EDU255AD and a minimum of 50% successful completion of all designated required course work.			
EDU255AF	Intern Certificate Student Teaching Lab - Elementary Education IV		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU255AE and a minimum of 75% successful completion of all designated required course work.		Acad	LAB 2.0 6.0 0.0
EDU256AA	Intern Certificate Student Teaching Lab Secondary Education		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education		Acad	LAB 4.0 12.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			engagement, and learner outcome awareness	approved college program and the partnering school district.			
EDU256AB	Intern Certificate Student Teaching Lab Secondary Education		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU256AA and a minimum of 50% successful completion of all designated required course work.		Acad	LAB 4.0 12.0 0.0
EDU256AC	Intern Certificate Student Teaching Lab - Secondary Education I		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district.		Acad	LAB 2.0 6.0 0.0
EDU256AD	Intern Certificate Student Teaching Lab - Secondary Education II		Supervised student teacher practicum. Emphasis on the provision of instruction to	Prerequisites: Baccalaureate Degree and formal		Acad	LAB 2.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	acceptance of a teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU256AC and a minimum of 25% successful completion of all designated required course work.			
EDU256AE	Intern Certificate Student Teaching Lab - Secondary Education III		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU256AD and a minimum of 50% successful completion of all designated required course work.		Acad	LAB 2.0 6.0 0.0
EDU256AF	Intern Certificate Student Teaching Lab - Secondary Education IV		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures,	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep		Acad	LAB 2.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	two year program plan by an Arizona Department of Education approved college program the partnering school district EDU256AE and a minimum of 75% successful completion of all designated required course work.			
EDU257AC	Intern Certificate Student Teaching Lab - Special Education I		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district.		Acad	LAB 2.0 6.0 0.0
EDU257AD	Intern Certificate Student Teaching Lab - Special Education II		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU257AC		Acad	LAB 2.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				and a minimum of 25% successful completion of all designated required course work.			
EDU257AE	Intern Certificate Student Teaching Lab - Special Education III		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU257AD and a minimum of 50% successful completion of all designated required course work.		Acad	LAB 2.0 6.0 0.0
EDU257AF	Intern Certificate Student Teaching Lab - Special Education IV		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU257AE and a minimum of		Acad	LAB 2.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				75% successful completion of all designated required course work.			
EDU260AA	Art Methods and Curriculum Development for Elementary		Overview and practical application of teaching elementary art. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU260AA requires an approved field experience.	Acad	LEC 4.0 4.0 4.0
EDU260AB	Art Methods and Curriculum Development for Secondary		Overview and practical application of teaching secondary art. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU260AB requires an approved field experience.	Acad	LEC 4.0 4.0 4.0
EDU261AA	Dance Methods and Curriculum Development for Elementary		Overview and practical application of teaching elementary dance and movement. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU261AA requires an approved field experience.	Acad	LEC 4.0 4.0 4.0
EDU261AB	Dance Methods and Curriculum Development for Secondary		Overview and practical application of teaching secondary dance and movement. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU261AB requires an approved field experience.	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EDU262AA	Dramatic Arts Methods and Curriculum Development for Elementary		Overview and practical application of teaching elementary dramatic arts. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU262AA requires an approved field experience.	Acad	LEC 4.0 4.0 4.0
EDU262AB	Dramatic Arts Methods and Curriculum Development for Secondary		Overview and practical application of teaching secondary dramatic arts. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU262AB requires an approved field experience.	Acad	LEC 4.0 4.0 4.0
EDU263AA	Music Methods and Curriculum Development for Elementary		Overview and practical application of teaching elementary music. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU263AA requires an approved field experience.	Acad	LEC 4.0 4.0 4.0
EDU263AB	Music Methods and Curriculum Development for Secondary		Overview and practical application of teaching secondary music. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU263AB requires an approved field experience.	Acad	LEC 4.0 4.0 4.0
EDU267	Reading Instructional Practices, Interventions, and Assessments		Overview of instructional practices, interventions, and assessments associated with reading instruction and the systematic teaching of phonics. Course will address historical	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher	EDU267 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			methods and current research in reading; analyze research-based instructional practices; analyze research-based assessments and possible interventions; review support provided by Multi-Tiered Systems of Support (MTSS) and Response to Intervention (RTI); and explore Reading disabilities (Dyslexia) and laws associated with Reading disabilities.	preparation program or permission of Department or Division.			
EDU268	Science of Reading Including Systematic Phonics Instruction		Overview of the science of reading with an emphasis on explicit instructional practices associated with research based systematic phonics instruction. Covers research based on the science of reading related to the teaching of reading in the K-8 school setting to include understanding reading research; essential components of reading instruction; implementation of effective methods for reading instruction; and alignment of reading instruction to systematic phonics instruction.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.	EDU268 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU269	Educational Technology		Overview and practical application of teaching methodology integrating technology into curriculum development for teachers. Explores how emerging technologies are used to teach and learn across varied educational environments (face-to-face, hybrid, online, etc.). Includes skills focused on basic computer operations, productivity software, digital citizenship, instructional practices,	Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			information literacy and family and professional partnerships. Emphasis placed on effective use of technology in teaching and learning. Discusses current trends and related issues about technology and its impacts in P12 education.				
EDU270	Learning and the Brain		Teaching and learning issues within a cognitive processes context. Covers emotion, memory, and recall as well as early brain development and its relationship to learning. Emphasis on current neuroscientific brain research and how it impacts teaching practice in preK-12 classrooms.	Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EDU270AB	Secondary Reading and Decoding		Focus on the theories, methods and models of teaching literacy and decoding in the content areas of secondary grades.	Prerequisites: Baccalaureate Degree and formal admission to a state approved Post Baccalaureate teacher preparation program.		Acad	LEC 3.0 3.0 3.0
EDU272	Educational Psychology		Focus on the study and application of psychological principles, theories, and methodologies related to teaching and learning. Emphasis on developmental, learning, and motivational theories. Current trends also covered.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EDU274	Understanding Adolescent Behavior in the Classroom		Focuses on understanding adolescents' development including psychosocial, emotional,	Prerequisites: Baccalaureate Degree and formal admission to	EDU274 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			cognitive and physical. Covers impact of early experiences, relationships, and learning abilities. Establishment of a learning environment supportive of the adolescent emphasized. Includes current research findings related to adolescents.	a state approved post-baccalaureate teacher preparation program.			
EDU276	Classroom Management and Behavior Analysis		Classroom management techniques, and behavior analysis. Classroom discipline models, student behavior and misbehavior, group dynamics, student self-motivation and learning styles covered. Professional Teaching Standards emphasized.	Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division.	EDU276 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU277AA	Elementary Student Teaching		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Formal admission to an undergraduate teacher preparation program, and a grade of C or better in EDU287AB and permission of Department or Division.		Acad	LAB 8.0 5.0 5.0
EDU277AB	Secondary Student Teaching		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner	Prerequisites: Formal admissions to an undergraduate teacher preparation program, and a grade of C or better in EDU287AB and		Acad	LAB 8.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			engagement, and learner outcome awareness.	permission of Department or Division.			
EDU277AC	Special Education: Cross-Categorical Student Teaching		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Formal admission to an undergraduate teacher preparation program, and a grade of C or better in EDU287AB and permission of Department or Division.		Acad	LAB 8.0 5.0 5.0
EDU278	Educational Assessment and Evaluation		Examination of assessing student performance. Assessment criteria and development of various types of assessment covered. Instructor developed assessments emphasized. Standardized, norm-referenced and criterion-referenced tests also included. Arizona State Board of Education Professional Teaching Standards emphasized	Prerequisites: A grade of C or better in EDU272.		Acad	LEC 3.0 3.0 3.0
EDU282AA	Service-Learning Experience in Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	EDU282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
EDU282AB	Service-Learning Experience in Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	EDU282AB may be repeated for a total of six (6) credit hours. Standard grading	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					available according to procedures outlined in catalog.		
EDU282AC	Service-Learning Experience in Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	EDU282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
EDU287AA	Master Teacher Seminar I		Special topics in education with an emphasis on current issues not covered in education courses.	Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division.	EDU287AA may be repeated for a total of four (4) credit hours.	Acad	LEC 1.0 1.0 1.0
EDU287AB	Master Teacher Seminar II		Special topics in education with an emphasis on current issues not covered in education courses.	Prerequisites: Formal admission to an undergraduate teacher preparation program.	EDU287AB may be repeated for a total of four (4) credit hours.	Acad	LEC 1.0 1.0 1.0
EDU287AC	Master Teacher Seminar III		Special topics in education with an emphasis on current issues not covered in education courses.	Prerequisites: Baccalaureate degree and formal admission to a state approved post baccalaureate teacher	EDU287AC may be repeated for a total of four (4) credit hours.	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				preparation program.			
EDU288AA	Student Teaching Lab - Elementary		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and a grade of C or better in EDU251 and permission of Department or Division.		Acad	LAB 8.0 5.0 0.0
EDU288AB	Student Teaching Lab - Secondary		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and a grade of C or better in EDU251 and permission of Department or Division.		Acad	LAB 8.0 5.0 0.0
EDU289	Secondary Methods and Curriculum Development		Overview and practical application of teaching methodology and curriculum development for secondary education teachers. Teaching strategies, curriculum design, lesson objectives, time management skills, teaching resources and student assessments covered. Professional Teaching Standards emphasized. Includes current research findings related to secondary	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	Upon completion of EDU289, students are required to enroll in one of the following courses: EDU289AA or EDU289AB or EDU289AC or EDU289AD or EDU289AE	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			education methods and curriculum development.		or EDU289AF.		
EDU289AA	Secondary Social Studies Methods and Curriculum Development		Overview and practical application of social studies teaching methodology and curriculum development for secondary teachers. Teaching strategies and learning styles covered. Curriculum design, lesson objectives, time management skills, teaching resources and student assessment also included. Professional Teaching Standards emphasized. Includes current research findings related to the application and learning of secondary social studies content; the methods alignment will be centered around History, Geography, Economics, or Political Science.	Prerequisites: Baccalaureate Degree and acceptance of formal application into a state approved post-baccalaureate teacher preparation program or permission of Department or Division. A grade of C or better in EDU289 or Corequisites: EDU289.	EDU289AA requires an approved school-based field experience.	Acad	L+L 2.0 2.0 2.0
EDU289AB	Secondary Mathematics Methods and Curriculum Development		Overview and practical application of mathematics teaching methodology and curriculum development for secondary teachers. Teaching strategies and learning styles covered. Curriculum design, lesson objectives, time management skills, teaching resources and student assessment also included. Professional Teaching Standards emphasized. Includes current research findings related to the application and learning of secondary mathematics content.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. Prerequisites: A grade of C or better in EDU289 or Corequisites: EDU289.	EDU289AB requires an approved field experience.	Acad	L+L 2.0 2.0 2.0
EDU289AC	Secondary Science Methods and Curriculum Development		Overview and practical application of science teaching methodology and curriculum development for secondary teachers. Teaching strategies and learning styles covered.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-	EDU289AC requires an approved field experience.	Acad	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Curriculum design, lesson objectives, time management skills, teaching resources and student assessment also included. Professional Teaching Standards emphasized. Includes current research findings related to the application and learning of secondary science content.	baccalaureate teacher preparation program. Prerequisites: A grade of C or better in EDU289 or Corequisites: EDU289.			
EDU289AD	Secondary English Methods and Curriculum Development		Overview and practical application of English teaching methodology and curriculum development for secondary teachers. Teaching strategies and learning styles covered. Curriculum design, lesson objectives, time management skills, teaching resources and student assessment also included. Professional Teaching Standards emphasized. Includes current research findings related to the application and learning of secondary English content.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. Prerequisites: A grade of C or better in EDU289 or Corequisites: EDU289.	EDU289AD requires an approved field experience.	Acad	L+L 2.0 2.0 2.0
EDU289AE	Secondary Methods and Curriculum Development in Special Topics		Overview and practical application of teaching methodology and curriculum development for secondary teachers in special topics such as Music, Theater, Art, Economics, Foreign Languages, Computers, PE, etc. Teaching strategies and learning styles covered. Curriculum design, lesson objectives, time management skills, teaching resources and student assessment also included. Professional Teaching Standards emphasized. Includes current research findings related to specific	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. Prerequisites: A grade of C or better in EDU289 or Corequisites: EDU289.	EDU289AE requires an approved field experience.	Acad	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			content teaching areas in Secondary Education.				
EDU290	Science Methods and Curriculum Development		Overview and practical application of teaching elementary science. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on Professional Teaching Standards. Includes current research findings related to the application and learning of elementary science content.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU290 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU291	Children's Literature	ENH291	Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
EDU292	The Art Of Storytelling	HUM292 STO292	Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
EDU293	Mathematics Methods and Curriculum Development		Overview and practical application of teaching mathematics in K-8 grades. Development of lesson plans and assessment instruments emphasized. Current trends, Professional Teaching Standards and National Council of Teachers of Mathematics Standards also covered. Includes current research findings related to the application and learning of	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU293 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			elementary mathematics content.				
EDU294	Multicultural Folktales	ENH294 STO294	Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
EDU295	Social Studies Methods and Curriculum Development		Overview of teaching elementary social studies. Topics include lesson plans preparation, teaching strategies, assessments, classroom management techniques and teaching resources. Emphasis on Professional Teaching Standards. Includes current research findings related to the application and learning of elementary social studies content.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.	EDU295 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
EDU296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
EDU296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
EDU296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EDU298AA	Special Projects	ECH298A A	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
EDU298AB	Special Projects	ECH298A B	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
EDU298AC	Special Projects	ECH298A C	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
EDU337	Structured English Immersion in Grades K-8		Overview of teaching to serve the needs of diverse English learner (EL) students in grades K-8. Includes comparison and evaluation of various language educational models, including Structured English Immersion (SEI) and the Arizona Language Development Approach (LDA) with a focus on asset based behaviors and expectations, integrated and targeted English Language Development (ELD) instruction. Covers legal and historical foundations and current issues.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EDU367	Science of Reading with Systematic Phonics Instruction in Grades K-8		Overview of the science of reading with an emphasis on explicit instructional practices associated with research-based systematic phonics instruction. Uses analysis of science of reading-based research to identify best practices for effectively teaching reading in the K-8 school setting, including essential components, pedagogical strategies and alignment to systematic phonics instruction.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.	EDU367 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU368	Reading Instructional Practices, Interventions, and Assessments in Grades K-8		Application of instructional practices, interventions and assessments associated with reading instruction and the systematic teaching of phonics to	Prerequisites: Formal acceptance to a Maricopa Community College state approved	EDU368 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			support readers of varying ages and ability levels, including students with dyslexia. This course addresses historical methods, current research, research-based instructional practices, assessments and interventions using Multi-tiered Systems of Support (MTSS) or Response to Intervention (RTI).	teacher preparation program or permission of Department or Division.			
EDU372	Educational Psychology for Teachers (Grades K-12)		Overview of scientific research and psychological principles, theories, and methodologies related to teaching and learning. Emphasis on developmental, learning, and motivational theories. Focuses on human diversity, theories of learning, intelligence, memory, creativity, assessment, and factors influencing effective instruction and learning.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EDU427	Social Studies Teaching Methods and Pedagogical Strategies for Grades K-8		Application of research-based instruction in elementary social studies. Topics include developmentally appropriate instruction, and assessment, cross-curricular integration of social studies, lesson plan preparation, evidence-based teaching strategies, and teaching resources. Emphasis on current professional teaching standards and Arizona Academic Standards.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.	EDU427 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU428	English Language Arts Teaching Methods and Pedagogical Strategies for Grades K-8		Application of research-based instruction in elementary English Language Arts, including reading, writing, speaking, and listening. Topics include developmentally	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher	EDU428 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			appropriate instruction, and assessment, cross-curricular integration of language arts, lesson plan preparation, evidence-based teaching strategies, and teaching resources. Emphasis on current professional teaching standards and Arizona Academic Standards.	preparation program or permission of Department or Division.			
EDU429	Science Teaching Methods and Pedagogical Strategies for Grades K-8		Application of research-based instruction in elementary science. Topics include developmentally appropriate instruction, and assessment, cross-curricular integration of scientific concepts and problem solving skills, lesson plan preparation, evidence-based teaching strategies, and teaching resources. Emphasis on current professional teaching standards and Arizona Academic Standards.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.	EDU429 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU431	Mathematics Teaching Methods and Pedagogical Strategies for Grades K-8		Application of research-based instruction in elementary mathematics. Topics include developmentally appropriate instruction, and assessment, cross-curricular integration of mathematics and logical problem solving, lesson plan preparation, evidence-based teaching strategies, and teaching resources. Emphasis on current trends, professional teaching standards and Arizona Academic Standards.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.	EDU431 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EDU477	Student Teaching: Elementary (Grades K-8)		Supervised student teacher practicum in a K-8 classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, teaching strategies, classroom	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher	EDU477 requires a minimum of eight (8) weeks, full-time classroom instruction.	Acad	LAB 6.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			management, assessing the trajectory of student learning, and professionalism.	preparation program or permission of Department or Division.			
EDU487	Professional Seminar: Current Trends in Elementary and Special Education		Special topics in K-12 (elementary and special) education with an emphasis on current topics and trends.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.	EDU487 may be repeated for a total of four (4) credit hours.	Acad	LEC 2.0 2.0 2.0
EEC205	Early Learning: Instructional Methodologies of Language, Math, Science, Social Studies and the Arts		Overview and practical application of teaching elementary language, math, science, social studies and the arts. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on Early Learning Standards (Birth to Age 5), Arizona Academic Standards Kindergarten-Third (K-3) Grade, and State Board of Education Professional Teaching Standards.	Prerequisites: Must hold a provisional or standard elementary or special education teaching certificate or permission of Department or Division.	EEC205 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EED111	Multimedia and the Early Childhood Education Classroom		Explore theories and teaching strategies of utilizing multimedia with children birth through 8 years of age. Examine usage of various multimedia in early childhood education settings. Explore ways to integrate appropriate multimedia usage into learning. Explore the use of multimedia and ECE professional growth	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EED115	Digital Literacy for Teaching and Learning in Education	EDU115	Overview of digital literacy for identifying the skills needed to become informed users of technology to communicate, instruct,	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			create and think critically with digital tools. Explores how emerging technologies are used to teach and learn across varied educational environments (face-to-face, hybrid, online, etc). Includes skills focused on basic computer operations, productivity software, digital citizenship, instructional practices, information literacy and family and professional partnerships. Discusses current trends and related issues about the use of technology and its impacts in P20 education.				
EED200	Foundations of Early Childhood Education		Overview of early childhood education (birth to age eight) in American society, including current issues and responsibilities. Emphasis on issues of professionalism, ethics and program types. Opportunities for students to explore potential career paths.	Prerequisites: None.	EED200 includes practicum designed to explore the field of early childhood education.	Acad	LEC 3.0 3.0 3.0
EED205	The Developing Child: Prenatal to Age Eight		Examination of process of physical, social, emotional, cognitive, language, and literacy development of typical and atypical young children; prenatal through age eight. Includes practical application and fieldwork experience	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
EED210	Creative and Cognitive Play		Benefits of play for children birth to 8 years of age. Inclusion of art, music, and movement used in all dimensions of play. Identify uses and roles in the development of children.	Prerequisites: A grade of C or better in CFS176 ECH176, or CFS235, or EED205.		Acad	LEC 3.0 3.0 3.0
EED211	Language Acquisition in the Young Child		Define speech and language and discuss theories of language	Prerequisites: A grade of C or better in		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			acquisition in young children, birth through 8 years of age in a variety of settings. Explore techniques to encourage and support the development of language, assessment techniques and family involvement.	CFS/ECH176 , or CFS235, or EED205.			
EED212	Guidance, Management and the Environment		Principles for guiding young children in early care and education environments. Exploration of guidance, management, and how the environment impacts the lives of young children. Includes observation of classrooms of children ages birth to age eight	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EED215	Early Learning: Health, Safety, Nutrition and Fitness		Consideration of public health issues and safety procedures within early childhood settings, serving young children birth to age eight. Overview of nutritional needs and issues of physical fitness and well-being in young children. Includes field experiences	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EED220	Child, Family, Community and Culture		Examines family, community and cultural influences on development of the young child (birth to age eight). Considers trends and threats to attachment, relationships and cultural identity. Includes social and emotional experiences and their impact on the developing brain.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EED222	Introduction to the Exceptional Young Child: Birth to Age Eight		Overview of the exceptional learner (birth - age eight), one who differs from the average or the norm, with emphasis on observation, techniques, characteristics, identification, types of	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			programs, and work with families. Issues related to learning exceptionalities, sensory and communication disorders, social and emotional problems, physical and health related disorders, and giftedness. Includes field experience		Designation : Social and Behavioral Sciences - [SB]		
EED225	Language and Literacy in the Context of Culture and Relationships		Introduces children's language acquisition and literacy development. Exploration of the relationships among language, literacy, family, culture, and community. Study of educational practices and advocacy opportunities that support language acquisition, literacy development and the preservation of heritage languages.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C]	Acad	LEC 3.0 3.0 3.0
EED245	Early Learning: Language Acquisition and Literacy Development		Overview of language acquisition and development, emergent literacy, early literacy development, and appropriate early experiences with books, reading, and writing for typical and atypical children birth to age eight. Emphasis placed on reading and writing readiness, methods to enhance literacy development, and strategies for selecting and using children's books.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EED250	Early Literacy Development		Overview of emergent literacy, early literacy development, and appropriate early experiences with books, reading, and writing. Emphasis placed on reading and writing readiness, methods to enhance literacy development, and	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			strategies for selecting and using children's books				
EED255	Portfolio Development and Writing for the Profession		Portfolio development, completion, and presentation. Self-assessment and educational short-term and long-term planning, professional development, writing and critical learning included.	Prerequisites: A grade of C or better in completion of twelve (12) credit hours of EED Early Education coursework and permission of Program Coordinator.		Acad	LEC 3.0 3.0 0.0
EED260	Early Childhood Infant/Toddler Internship		Work experience with infants and toddlers in early care and education settings. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	EED260 may be repeated for a total of six (6) credit hours.	Acad	LAB 1.0 1.0 0.0
EED261	Early Childhood Preschool Internship		Work experience with preschoolers in early care and education settings. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	EED261 may be repeated for a total of six (6) credit hours.	Acad	LAB 1.0 1.0 0.0
EED262	Early Childhood Internship: Infant/Toddler		Work experience with infants and toddlers in early care and education settings.	Prerequisites: Permission of Department or Division.		Acad	LAB 2.0 2.0 0.0
EED263	Early Childhood Internship: Preschool		Work experience with preschoolers in early care and education settings.	Prerequisites: Permission of Department or Division.		Acad	LAB 2.0 2.0 0.0
EED265	Early Childhood Internship: K-3		Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: A grade of C or better in EED200, EED212, EED215, EED220, EED222, EED270, EED275, and EED280.		Acad	LAB 4.0 5.0 0.0
EED270	Early Learning Development: Birth to Age Eight		Teaching and early learning issues within a cognitive processes context. Covers emotion, memory, and recall as	Prerequisites: A grade of C or better in CFS/ECH176 or CFS205 or		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			well as early brain development and its relationship to early learning for the young child, birth to age eight.	CFS235 or EED205 or permission of instructor.			
EED272	Early Childhood Educational Psychology		Focus on the study and application of psychological principles, theories, and methodologies related to early childhood teaching and learning. Emphasis on early childhood developmental, learning, and motivational theories. Current trends also covered	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EED275	Early Learning Curriculum and Instruction: Math and Science		Overview and practical application of teaching math and science concepts to typical and atypical toddlers, preschoolers, and students Kindergarten-third grade (K-3). Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on overview and practical application of National Association for the Education of Young Children Standards, Early Learning Standards, Arizona Academic Standards (K-3), State Board of Education Professional Teaching Standards and National Council of Teachers of Mathematics Standards.	Prerequisites: A grade of C or better in CFS/ECH176 or EED205.	EED275 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EED277	Early Learning Curriculum and Instruction: Language Arts, Social Studies, Art, Music and Movement		Overview and practical application of teaching language arts, social studies, art, music and movement to typical and atypical toddlers, preschoolers, and students K-3. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on overview	Prerequisites: A grade of C or better in CFS/ECH176 or EED205.	EED277 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and practical application of National Association for the Education of Young Children Standards, Early Learning Standards, Arizona Academic Standards (K-3), and State Board of Education Professional Teaching Standards.				
EED278	Early Learning Curriculum and Instruction - Birth to Age Eight		Considerations and evaluations of curriculum appropriate to the developmental characteristics of learners, birth through eight years. Includes how early childhood standards, philosophies, and program settings relate to the teaching, learning, and assessment process. Includes field experience.	Prerequisites: A grade of C or better in EED200.		Acad	LEC 3.0 3.0 3.0
EED280	Standards, Observation & Assessment of Typical/Atypical Behaviors of Young Children Birth to Age Eight		Standards, observation, and assessment of typical and atypical behaviors, overview of standards, observation and assessment methodologies for typical and atypical young children (birth to age eight). Includes ethics, referral and reporting procedures, and collaboration with families and other professionals.	Prerequisites: A grade of C or better in CFS/ECH176 or CFS235 or EED205.		Acad	LEC 3.0 3.0 3.0
EED282AA	Service-Learning Experience in Early Childhood Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	EED282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Repeats 6.0 6.0		
EED282AB	Service-Learning Experience in Early Childhood Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	EED282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 3.0 6.0	Acad	LAB 2.0 2.0 0.0
EED282AC	Service-Learning Experience in Early Childhood Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	EED282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 2.0 6.0	Acad	LAB 3.0 3.0 0.0
EEE120	Digital Design Fundamentals	CSC120	Number systems, conversion methods, binary and complement arithmetic, Boolean switching algebra and circuit minimization techniques. Analysis and design of combinational logic, flip-flops, simple counters, registers, ROMs, PLDs, synchronous and asynchronous sequential circuits, and state reduction techniques. Building physical circuits.	Prerequisites: None. Corequisites: CSC100 or CSC110 or permission of Instructor.		Acad	L+L 4.0 6.0 6.0
EEE202	Circuits and Devices		Introduction to circuits and devices. Component models, transient analysis, steady state analysis, Laplace transform, and active	Prerequisites: A grade of C or better in PHY116 or PHY131. Corequisites:		Acad	LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and passive filter networks.	MAT276 or permission of Instructor.			
EEE203	Signals and Systems		Introduction to continuous and discrete time signal and system analysis, linear systems, Fourier, and z-transforms.	Prerequisites: A grade of C or better in EEE202.		Acad	L+L 3.0 5.0 5.0
EEE220	Programming for Computer Engineering	CSC220	Introduction to procedural programming (C/C++) and hardware description language (VHDL).	Prerequisites: A grade of C or better in ((EEE120 or CSC120) and CSC205) or permission of Instructor.		Acad	L+L 3.0 5.0 5.0
EEE230	Computer Organization and Assembly Language	CSC230	Assembly language programming including input/output (I/O) programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Processor organization and design, data path, control, pipelining, and input/output. Memory organization with cache and virtual memory.	Prerequisites: A grade of C or better in [(CSC100 or CSC110) and CSC120 EEE120] or permission of Instructor.		Acad	L+L 4.0 5.0 5.0
EEG115	Biomedical Electronic Technology I		Review of basic principles of math and physics as applied to Biomedical Electronic technology and monitoring applications within the fields of electroneurodiagnostic technology and polysomnography technology.	Prerequisites: Admission to the Electroneuro diagnostic Technology program or Polysomnographic Technology program.		Occ	LEC 2.0 2.0 2.0
EEG116	Biomedical Electronic Technology II		Electronic concepts, electrical connections including grounding, and electrical and patient safety as applied to medical electronic technology and monitoring applications within the fields of electroneurodiagnostic technology and polysomnography technology.	Prerequisites: Admission to the Electroneuro diagnostics Technology program or the Polysomnographic Technology program.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EEG130	Introduction to EEG		Introduction to EEG (Electroneurodiagnostic) theory, with emphasis on instrumentation, testing protocol and major disorders for which EEG is diagnostically useful. Introduction and hands on experience with the 10/20 International Electrode Application System.	Prerequisites: Admission to the Electroneurodiagnostics Program or admission to Polysomnographic Technology Program.		Occ	L+L 4.0 4.0 4.0
EEG140	Basic Electroneurodiagnostic Skills		Theory and clinical procedures germane to the electroneurodiagnostic (EEG) department. Stress on hospital orientation, job competency, professional growth, and interpersonal communications with staff and patients.	Prerequisites: Admission to the Electroneurodiagnostic (END) Technology program. Corequisites: EEG140LL.		Occ	LEC 1.0 1.0 1.0
EEG140LL	Basic Electroneurodiagnostic Skills Laboratory		Practical application, and clinical procedures germane to the electroneurodiagnostic (EEG) department. Stress on hospital orientation, job competency, professional growth, and interpersonal communications with staff and patients.	Prerequisites: Admission to the Electroneurodiagnostic (END) Technology program. Corequisites: EEG140.		Occ	LAB 1.0 3.0 3.0
EEG200	Clinical Rotation I		Clinical application of Electroneurodiagnostic (EEG) skills and knowledge acquired during required program classroom and lab courses. Full supervision of tests performed with progression to independent testing.	Prerequisites: Admission to the Electroneurodiagnostics Program.		Occ	LAB 3.0 18.0 0.0
EEG201	Intermediate EEG		Expanded study of neurological and neurophysiological medicine. Discuss the studies in cerebrovascular and central nervous system lesions, metabolic and infectious disease, trauma, congenital, and	Prerequisites: Admission to the Electroneurodiagnostic (END) Technology program. Corequisites: EEG201LL.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			pediatric disorders. Extensive record review. Evaluate the normal and abnormal electrocardiogram (ECG) patterns related to electroencephalogram (EEG) testing.				
EEG201LL	Intermediate EEG Laboratory		Expanded study and application of neurological and neurophysiological medicine. Studies in cerebrovascular and central nervous system lesions, metabolic and infectious disease, trauma, congenital, and pediatric disorders. Extensive record review. Normal and abnormal electrocardiogram (ECG) patterns related to electroencephalogram (EEG) testing.	Prerequisites: Admission to the Electroneuro diagnostic (END) Technology program. Corequisites: EEG201.		Occ	LAB 1.0 3.0 3.0
EEG205	Applied Evoked Potentials and Nerve Conduction Studies		Theoretical aspects of Evoked Potentials (EP), mainly Visual Evoked Response (VER), Brain Auditory Evoked Response (BAER), and Somatosensory Evoked Potential (SSEP) tests. EP instrumentation, recording techniques and data analysis of electrical activity of the nervous system elicited by using selected physical stimuli (evoked potentials) and concepts of signal averaging, (in accordance with the most recent American Clinical Neurophysiology Society (ACNS) guidelines on Evoked Potentials.)	Prerequisites: Admission to the Electroneuro diagnostic (END) Technology program. Corequisites: EEG205LL.		Occ	LEC 1.0 1.0 1.0
EEG205LL	Applied Evoked Potentials and Nerve Conduction Studies Laboratory		Practical aspects of Evoked Potentials (EP), mainly Visual Evoked Response (VER), Brain Auditory Evoked Response (BAER), and Somatosensory Evoked Potential (SSEP) tests.	Prerequisites: Admission to the Electroneuro diagnostic (END) Technology program.		Occ	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			EP instrumentation, recording techniques and data analysis of electrical activity of the nervous system elicited by using selected physical stimuli (evoked potentials) and concepts of signal averaging, (in accordance with the most recent American Clinical Neurophysiology Society (ACNS) guidelines on Evoked Potentials.)	Corequisites: EEG205.			
EEG206	Advanced EEG		Comprehensive study of neurological and neurophysiological medicine. Studies in cerebrovascular and central nervous system lesions, metabolic and infectious disease, trauma and congenital and pediatric disorders. Normal and abnormal pattern review. Case presentations. Board examination review.	Prerequisites: Admission to the Electroneuro diagnostic (END) program. Corequisites: EEG206LL.		Occ	LEC 1.0 1.0 1.0
EEG206LL	Advanced EEG Laboratory		Comprehensive advanced study and application of methods of neurological and neurophysiological medicine. Studies in cerebrovascular and central nervous system lesions, metabolic and infectious disease, trauma and congenital and pediatric disorders. Normal and abnormal pattern review. Case presentations. Board examination review in the laboratory setting.	Prerequisites: Admission to the Electroneuro diagnostic (END) Technology program. Corequisites: EEG206.		Occ	LAB 1.0 3.0 3.0
EEG207	Electroneurodiagnostic Record Review		Normal and abnormal pattern review for adults and pediatric patients, Nerve Conduction Velocity (NCV) pattern recognition and review, special procedures, Long Term Monitoring (LTM), and Intraoperative Monitoring	Prerequisites: Admission to the Electroneuro diagnostics (END) Technology Program.		Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross References	Description	Requisite	Course Note	Subject Type	Credits Periods Load
			(IOM) pattern recognition and review.				
EEG210	Applied Neurophysiology		Introduction to central nervous system. Emphasis on conduction pathways, anatomy, and blood supply. Survey of neurotransmitters, pharmacology and current research.	Prerequisites: Admission to the Electroneurodiagnostic Technology program or Polysomnographic Technology program.		Occ	LEC 3.0 3.0 3.0
EEG211	Clinical Rotation II		Clinical application of Electroneurodiagnostic (EEG) skills and knowledge acquired during didactic courses and clinical practicums. Full supervision of tests performed with progression to independent testing.	Prerequisites: Admission to the Electroneurodiagnostics Program.		Occ	LAB 3.0 18.0 0.0
EEG220	Clinical Rotation III		Advanced clinical application of Electroneurodiagnostic (EEG) skills and knowledge acquired during didactic courses and clinical practicums. Full supervision of tests performed with progression to independent testing.	Prerequisites: Admission to the Electroneurodiagnostics Program.		Occ	LAB 3.0 18.0 0.0
EEG282AA	Volunteerism for Electroneurodiagnostic Technology: Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	EEG282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 1.0
EEP224	Child Development: Prenatal to Age Eight		Examination of process of physical, social, emotional, cognitive, language, and literacy development of typical and atypical young children; prenatal through age eight.	Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Consideration of public health issues and safety procedures within early childhood settings. Overview of nutritional needs and issues of physical fitness and well-being in typical and atypical young children. Includes practical application and fieldwork experience.	approved post-baccalaureate teacher preparation program or permission of Department or Division.			
EEP240	Early Childhood Foundations		Overview of early childhood education (birth to age eight) in American society, including current issues and responsibilities. Emphasis on issues of professionalism, ethics and program types. Opportunities for students to explore potential career paths. Includes field experience.	Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EEP242	Early Childhood Guidance and Management		Principles for guiding young children in early care and education environments. Exploration of guidance, management, and how the environment impacts the lives of typical and atypical young children. Includes observation of classrooms of children ages birth to age eight.	Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EEP244	Early Childhood Introduction to the Exceptional Young Child		Overview of the exceptional learner (birth to age eight), one who differs from the average or the norm, with emphasis on observation, techniques, characteristics, identification, types of programs, and work with	Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			families. Issues related to learning exceptionalities, sensory and communication disorders, social and emotional problems, physical and health related disorders, and giftedness. Includes field experience.	baccalaureat e teacher preparation program or permission of Department or Division.			
EEP246	Early Childhood Culture, Community, Family and the Child		Examines family, community, and cultural influences on development of the young child birth to third grade. Considers trends and threats to attachment, relationships and cultural identity. Includes social and emotional experiences and their impact on the developing brain.	Prerequisites: Baccalaureat e Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureat e teacher preparation program or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EEP260	Early Childhood Curriculum and Methods of Math - Birth to Age Eight		Overview and practical application of teaching math concepts to toddlers, preschoolers, and students Kindergarten through third grade (K-3). Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on overview and practical application of Early Learning Standards, Arizona Academic Standards (K-3), State Board of Education Professional Teaching Standards and National Council of Teachers of Mathematics Standards.	Prerequisites: Baccalaureat e Degree and formal admission to a state approved post-baccalaureat e early childhood teacher preparation program.	EEP260 requires an approved school-based practicum.	Acad	LEC 3.0 3.0 3.0
EEP262	Early Childhood Curriculum and Methods of Science - Birth to Age Eight		Overview and practical application of teaching science concepts to toddlers, preschoolers, and students Kindergarten and third grade (K-3). Covers	Prerequisites: Baccalaureat e Degree and formal admission to a state approved	EEP262 requires an approved field experience.	Acad	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on overview and practical application of Early Learning Standards, Arizona Academic Standards K-3, State Board of Education Professional Teaching Standards.	post-baccalaureate early childhood teacher preparation program.			
EEP264	Early Childhood Curriculum and Methods of Social Studies - Birth to Age Eight		Overview and practical application of teaching social studies to toddlers, preschoolers, and students K-3. Covers teaching strategies, learning environments, and teaching resources. Emphasis on overview and practical application of Early Learning Standards, Arizona Academic Standards Kindergarten through third grade (K-3).	Prerequisites: accalaureate Degree and formal admission to a state approved post-baccalaureate early childhood teacher preparation program.	EEP264 requires an approved field experience.	Acad	LEC 1.0 1.0 1.0
EEP266	Early Childhood Curriculum and Methods in Language Arts - Birth to Age Eight		Overview and practical application of teaching Language Arts concepts to toddlers, preschoolers, and students in Kindergarten through third grade (K-3). Covers communication skills of reading, writing, listening and speaking, interpreting visual messages and creating visual messages. Emphasis on overview and practical application of Early Learning Standards, Arizona Language Arts Standards (K-3), and State Board of Education Professional Teaching Standards	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate early childhood teacher preparation program.		Acad	LEC 1.0 1.0 1.0
EEP268	Early Childhood Curriculum and Methods in The Arts - Birth to Age Eight		Exploration of fine arts integration, birth to age 8, in early childhood settings. Focus on the impact on life-long	Prerequisites: Baccalaureate Degree and formal admission to		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			learning and education goal achievement when curriculum includes fine arts. Arizona art standards of dance, visual, theater and music also covered.	a post-baccalaureate early childhood teacher preparation program.			
EEP276	Standards, Observation and Assessment of Typical and Atypical Behaviors Birth to Age Eight		Observation and assessment of typical and atypical behaviors, overview of standards, observation and assessment methodologies for typical and atypical young children birth to age eight. Includes ethics, referral and reporting procedures, and collaboration with families and other professionals.	Prerequisites: A grade of C or better in EEP260, EEP262, EEP264, EEP266, EEP268 and Baccalaureate Degree and formal admission to a state approved post-baccalaureate early childhood teacher preparation program.		Acad	LEC 3.0 3.0 3.0
EEP288	Student Teaching Lab - Early Childhood		Supervised (K-3) student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and a grade of C or better in (EDU220, EDU251, EEP240, EEP242, EEP244, EEP246 and EEP276) and permission of Department or Division.		Acad	LAB 4.0 5.0 0.0
EEP289	Internship: Early Childhood Infant, Toddler, Preschool		Supervised field experience with infants, toddlers and/or preschoolers in early	Prerequisites: Baccalaureate Degree and formal		Acad	LEC 4.0 4.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			care and education settings.	admission to a state approved post-baccalaureate early childhood teacher preparation program and (EDU220 EDU251 EEP240 EEP242 EEP244 EEP246 and EEP276) and permission of Department or Division.			
EEP311	Foundations of Dual Language Learning - Birth to Age Eight		Examination of the needs of dual language learners birth to grade three. Includes comparison and evaluation of various language educational models with a focus on asset based behaviors and expectations, integrated and targeted dual language instruction. Covers legal and historical foundations and current issues.	Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division).		Acad	LEC 3.0 3.0 3.0
EEP312	Family, Community, and School Collaboration for Dual Language Learners - Birth to Age Eight		Examines multiple influences on the development of the dual language learner (birth to age eight). Considers foundational structure provided by and reinforced by the family. Recognizes multiple messages of value and power communicated through community	Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			structures. Includes strategies for relationship building between families, school, and community with a long term goal of encouraging dual language learners.	program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division).			
EEP313	Bilingual and ESL Methods - Birth to Age Eight		Culturally responsive strategies for working with the dual language learners in early childhood settings. Components of dual language curriculum content and learning techniques focusing on bilingual and English as a Second Language (ESL) strategies.	Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division).		Acad	LEC 3.0 3.0 3.0
EEP314	Teaching of Reading and Writing for Dual Language Learners - Birth to Age Eight		Introduction to teaching reading and writing for dual language learners in early childhood settings. Includes second language acquisition terminology, theories, and strategies. Emphasis on instructional and assessment strategies as well as reading comprehension and writing skills.	Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				program or permission of Department or Division).			
EEP315	Social Studies and Arts Methods for Dual Language Learners - Birth to Age Eight		Overview and practical application of teaching social studies and arts for dual language learners in early childhood settings. Covers teaching strategies, learning environments, and teaching resources. Emphasis on overview of relevant guidelines and standards for children birth through third grade (pre-K-3).	Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division).		Acad	LEC 3.0 3.0 3.0
EEP316	Math and Science Methods for Dual Language Learners - Birth to Age Eight		Overview and practical application of teaching math and science for dual language learners in early childhood settings. Covers teaching strategies, learning environments, and teaching resources. Emphasis on overview of relevant guidelines and standards for children birth through third grade (pre-K-3).	Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division).	EEP316 requires an approved field experience. For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test.	Acad	LEC 3.0 3.0 3.0
EEP411	Sheltered Instruction for Dual Language		Analysis of sheltered instruction strategies designed to serve the	Prerequisites: A grade of C or better in		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Settings - Birth to Age Eight		needs of dual language learners ages birth to eight. Includes comparison and evaluation of various language educational models with a focus on asset based behaviors and expectations as well as integrated and targeted language instruction.	EEP311 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division).			
EEP412	Assessment of Dual Language Learners - Birth to Age Eight		Teaching and assessment of dual language learners ages birth to eight. Covers differentiated instruction, special education needs vs. language needs, learning environments and utilizing ongoing assessment of student learning to guide instruction.	Prerequisites: A grade of C or better in EEP311 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division).		Acad	LEC 3.0 3.0 3.0
EEP413	Reading Instructional Practices, Interventions, and Assessments - Birth through Adolescence		Overview of instructional practices, interventions, and assessments associated with reading instruction and the systematic teaching of phonics to children from birth through adolescence. Includes historical methods and current research in	Prerequisites: A grade of C or better in EEP311 or permission of Instructor and (formal admission to an undergraduate educator		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			reading; research-based instructional practices; research based assessments and possible interventions; support provided by Multi-Tiered Systems of Support (MTSS) and Response to Intervention (RTI). Focus on reading disabilities (dyslexia) and laws associated with reading disabilities for children from birth through adolescence.	preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division).			
EEP414	Science of Reading and Systematic Phonics Instruction for Birth through Adolescence		Overview of the science of reading with an emphasis on explicit instructional practices associated with research-based, systematic phonics instruction for children from birth through adolescence. Covers research-based on the science of reading related to the teaching of reading in the pre-K-8 school setting to include understanding reading research; essential components of reading instruction; implementation of effective methods for reading instruction; and alignment of reading instruction to systematic phonics instruction.	Prerequisites: A grade of C or better in EEP311 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division).	EEP414 requires an approved field experience. For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test.	Acad	LEC 3.0 3.0 3.0
EEP415	Student Teaching in a Dual Language K-3 Setting		Supervised (K-3) student teacher practicum in a dual language setting. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: A grade of C or better in EEP311 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early	EEP415 students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test for some employmen	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Childhood Education - Dual Language program or permission of Department or Division).	t and field experiences (including internship courses).		
EFE232	Mild-Moderate Disabilities Student Teaching		Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Formal admission to an undergraduate teacher preparation program and permission of Department or Division.		Acad	LAB 8.0 5.0 0.0
EFE260	Student Teaching Lab K-12 - Art		Supervised student teacher practicum. Emphasis on the provision of K-12 art instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal admission to a state-approved post-baccalaureate teacher preparation program and permission of Department or Division.		Acad	LAB 12.0 9.0 0.0
EFE260AC	Intern Certificate Student Teaching Lab K-12 - Art Education I		Supervised student teacher practicum. Emphasis on the provision of K-12 art instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering		Acad	LAB 3.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				school district.			
EFE260AD	Intern Certificate Student Teaching Lab K-12 - Art Education II		Supervised student teacher practicum. Emphasis on the provision of K-12 art instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EFE260AC and a minimum of 25% successful completion of all designated required course work.		Acad	LAB 3.0 9.0 0.0
EFE260AE	Intern Certificate Student Teaching Lab K-12 - Art Education III		Supervised student teacher practicum. Emphasis on the provision of K-12 art instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EFE260AD and a minimum of 50% successful completion of all designated required course work.		Acad	LAB 3.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EFE260AF	Intern Certificate Student Teaching Lab K-12 - Art Education IV		Supervised student teacher practicum. Emphasis on the provision of K-12 art instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EFE260AE and a minimum of 75% successful completion of all designated required course work.		Acad	LAB 3.0 9.0 0.0
EFE261	Student Teaching Lab K-12 - Dance		Supervised student teacher practicum. Emphasis on the provision of K-12 dance instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal admission to a state-approved post-baccalaureate teacher preparation program and permission of Department or Division.		Acad	LAB 12.0 9.0 0.0
EFE261AC	Intern Certificate Student Teaching Lab K-12 - Dance Education I		Supervised student teacher practicum. Emphasis on the provision of K-12 dance instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved		Acad	LAB 3.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			engagement, and learner outcome awareness.	college program and the partnering school district.			
EFE261AD	Intern Certificate Student Teaching Lab K-12 - Dance Education II		Supervised student teacher practicum. Emphasis on the provision of K-12 dance instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE261AC and a minimum of 25% successful completion of all designated required course work.		Acad	LAB 3.0 9.0 0.0
EFE261AE	Intern Certificate Student Teaching Lab K-12 - Dance Education III		Supervised student teacher practicum. Emphasis on the provision of K-12 dance instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE261AD and a minimum of 50%		Acad	LAB 3.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				successful completion of all designated required course work.			
EFE261AF	Intern Certificate Student Teaching Lab K-12 - Dance Education IV		Supervised student teacher practicum. Emphasis on the provision of K-12 dance instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE261AE and a minimum of 75% successful completion of all designated required course work.		Acad	LAB 3.0 9.0 0.0
EFE262	Student Teaching Lab K-12 - Drama		Supervised student teacher practicum. Emphasis on the provision of K-12 drama instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal admission to a state-approved post-baccalaureate teacher preparation program and permission of Department or Division.		Acad	LAB 12.0 9.0 0.0
EFE262AC	Intern Certificate Student Teaching Lab K-12 - Drama Education I		Supervised student teacher practicum. Emphasis on the provision of K-12 drama instruction to learners. Covers lesson plan	Prerequisites: Baccalaureate Degree and formal acceptance of a specified		Acad	LAB 3.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district.			
EFE262AD	Intern Certificate Student Teaching Lab K-12 - Drama Education II		Supervised student teacher practicum. Emphasis on the provision of K-12 drama instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE262AC and a minimum of 25% successful completion of all designated required course work.		Acad	LAB 3.0 9.0 0.0
EFE262AE	Intern Certificate Student Teaching Lab K-12 - Drama Education III		Supervised student teacher practicum. Emphasis on the provision of K-12 drama instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and		Acad	LAB 3.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			learner outcome awareness.	the partnering school district EFE262AD and a minimum of 50% successful completion of all designated required course work.			
EFE262AF	Intern Certificate Student Teaching Lab K-12 - Drama Education IV		Supervised student teacher practicum. Emphasis on the provision of K-12 drama instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE262AE and a minimum of 75% successful completion of all designated required course work.		Acad	LAB 3.0 9.0 0.0
EFE263	Student Teaching Lab K-12 - Music		Supervised student teacher practicum. Emphasis on the provision of K-12 music instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and	Prerequisites: Baccalaureate Degree and formal admission to a state-approved post-baccalaureate teacher preparation program and permission of Department or Division.		Acad	LAB 12.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			learner outcome awareness.				
EFE263AC	Intern Certificate Student Teaching Lab K-12 - Music Education I		Supervised student teacher practicum. Emphasis on the provision of K-12 music instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district.		Acad	LAB 3.0 9.0 0.0
EFE263AD	Intern Certificate Student Teaching Lab K-12 - Music Education II		Supervised student teacher practicum. Emphasis on the provision of K-12 music instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE263AC and a minimum of 25% successful completion of all designated required course work.		Acad	LAB 3.0 9.0 0.0
EFE263AE	Intern Certificate Student Teaching Lab K-12 - Music Education III		Supervised student teacher practicum. Emphasis on the provision of K-12 music instruction to learners. Covers lesson plan development, classroom	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep		Acad	LAB 3.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE263AD and a minimum of 50% successful completion of all designated required course work.			
EFE263AF	Intern Certificate Student Teaching Lab K-12 - Music Education IV		Supervised student teacher practicum. Emphasis on the provision of K-12 music instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE263AE and a minimum of 75% successful completion of all designated required course work.		Acad	LAB 3.0 9.0 0.0
EFE291	Special Education: Mild-Moderate Student Teaching		Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom	Prerequisites: Baccalaureate Degree and formal admission to a state approved		Acad	LAB 8.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	post-baccalaureate teacher preparation program and (a grade of C or better in EDU223AF and EDU293) and permission of Department or Division.			
EFE291AC	Special Education: Mild-Moderate Student Teaching I		Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and (a grade of C or better in EDU223AF and EDU293) and permission of Department or Division.		Acad	LAB 2.0 6.0 0.0
EFE291AD	Special Education: Mild-Moderate Student Teaching II		Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and (a grade of C or better in EDU223AF and EDU293) and permission of Department or Division.		Acad	LAB 2.0 6.0 0.0
EFE291AE	Special Education: Mild-Moderate Student Teaching III		Supervised student teaching. Emphasis on the provision of	Prerequisites: Baccalaureate Degree and		Acad	LAB 2.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	formal admission to a state approved post-baccalaureat e teacher preparation program and (a grade of C or better in EDU223AF and EDU293) and permission of Department or Division.			
EFE291AF	Special Education: Mild-Moderate Student Teaching IV		Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureat e Degree and formal admission to a state approved post-baccalaureat e teacher preparation program and (a grade of C or better in EDU223AF and EDU293) and permission of Department or Division.		Acad	LAB 2.0 6.0 0.0
EFE297AA	Intern Certificate Student Teaching Lab - K-3 Part A		Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureat e Degree and formal acceptance of a teacher prep program plan by an Arizona Department of Education approved college program and the partnering school district.	Students fulfilling internship credits for certification through the Arizona Department of Education may choose to complete one of the following course sequencing for a total of four (4) credits:	Acad	LAB 2.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					(EFE297AA and EFE297AB) or (EFE297AC , EFE297AD, EFE297AE, and EFE297AF)		
EFE297AB	Intern Certificate Student Teaching Lab - K-3 Part B		Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep plan by an Arizona Department of Education approved college program, the partnering school district, EFE297AA, and a minimum of 50% successful completion of course work.	Students fulfilling internship credits for certification through the Arizona Department of Education may choose to complete one of the following course sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC , EFE297AD, EFE297AE, and EFE297AF)	Acad	LAB 2.0 6.0 0.0
EFE297AC	Intern Certificate Student Teaching Lab - K-3 Level I		Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and	Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep program plan by an Arizona Department of Education approved college program and the	Students fulfilling internship credits for certification through the Arizona Department of Education may choose to complete one of the following course	Acad	LAB 1.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			learner outcome awareness.	partnering school district.	sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC, EFE297AD, EFE297AE, and EFE297AF)		
EFE297AD	Intern Certificate Student Teaching Lab - K-3 Level II		Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep plan by an Arizona Department of Education approved college program, the partnering school district, EFE297AC, and a minimum of 25% successful completion of course work.	Students fulfilling internship credits for certification through the Arizona Department of Education may choose to complete one of the following course sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC, EFE297AD, EFE297AE, and EFE297AF)	Acad	LAB 1.0 3.0 0.0
EFE297AE	Intern Certificate Student Teaching Lab - K-3 Level III		Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism.	Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep plan by an Arizona Department of Education approved	Students fulfilling internship credits for certification through the Arizona Department of Education may choose	Acad	LAB 1.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes learner preparation, learner engagement, and learner outcome awareness.	college program, the partnering school district, EFE297AD, and a minimum of 50% successful completion of course work.	to complete one of the following course sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC , EFE297AD, EFE297AE, and EFE297AF)		
EFE297AF	Intern Certificate Student Teaching Lab - K-3 Level IV		Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness.	Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep plan by an Arizona Department of Education approved college program, the partnering school district, EFE297AE, and a minimum of 75% successful completion of course work.	Students fulfilling internship credits for certification through the Arizona Department of Education may choose to complete one of the following course sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC , EFE297AD, EFE297AE, and EFE297AF)	Acad	LAB 1.0 3.0 0.0
ELA111	Construction Electricity I		Introduction to the electrical construction trade incorporating safety awareness, introductory concepts in electrical theory, math review, solving simple	Prerequisites: Registered apprenticeship status or permission of the Apprenticeship		Occ	L+L 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			equations, ratios, percentages and proportions. Study of the National Electrical code (NEC), practical use of materials and tools of the electrical construction trade. Basic splicing, anchoring, and fusing procedures; basic conduit bending calculations and installations, introduction to blueprint reading for electricians, rigging and lifting techniques.	p Coordinator.			
ELA112	Construction Electricity II		Introduction to the fundamentals electricity, basic direct current (DC) theory through advanced DC theory, advanced conduit fabrication, bending applications and calculations. Practical applications for wiring devices and conduit bending.	Prerequisites: Registered apprenticeshi p status or permission of the Apprenticeshi p Coordinator.		Occ	L+L 6.0 6.0 6.0
ELA113	Introduction to National Electrical Code		Development, content, structure, and definitions in the National Electrical Code (NEC). Application of the NEC for proper and safe electrical installations and wiring methods.	Prerequisites: Registered apprenticeshi p status or permission of Apprenticeshi p Coordinator.		Occ	L+L 3.0 3.0 3.0
ELA123	Construction Electricity III		American labor history, parliamentary procedures. Electrical theory of alternating current systems pertaining to inductance, and capacitance; use of alternating current (AC) and direct current (DC) meters, rectifiers and capacitors.	Prerequisites: Registered apprenticeshi p status or permission of the Apprenticeshi p Coordinator.		Occ	L+L 6.0 6.0 6.0
ELA124	Construction Electricity IV		Transformers principles and applications in regards to use, connection, installation and safety related to transformer principles and applications including requirements specified by the National Electrical Code (NEC).	Prerequisites: Registered apprenticeshi p status or permission of the Apprenticeshi p Coordinator.		Occ	L+L 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Filters and power quality for electrical systems, direct current generation, application of test instruments for power quality, instrumentation, insulation testing and voice-data-video. Blueprint reading for electricians, commercial drawings, specifications, and schedules.				
ELA125	National Electric Code I		National Electrical Code (NEC) related to branch circuits, feeders, services, devices, conductors, raceways and cable assemblies. Electrical safety incorporating Occupational Safety and Health Association (OSHA) requirements and National Fire Protection Association (NFPA) 70E guidelines.	Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
ELA235	Advanced Construction Electricity I		Advanced industrial blueprint reading, lighting design, healthcare systems including the National Electrical Code (NEC) requirements. Motors and motor controls.	Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
ELA236	Advanced Construction Electricity II		Motor Controls, types of motor controls, components, motor control circuitry, and installations of motor control components and circuitry: Instrumentation and process controls, theory of process controls, installation, calibration, and troubleshooting of instruments and control circuitry.	Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
ELA238	National Electric Code II		National Electrical Code requirements for Grounding and bonding electrical installations. Continued study of electrical safety incorporating	Prerequisites: Registered apprenticeship status or permission of the Apprenticeship		Occ	LAB 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Occupational Safety and Health Association (OSHA) requirements and National Fire Protection Association (NFPA) 70E guidelines.	p Coordinator.			
ELA246	National Electric Code III		National Electrical Code (NEC) requirements for special occupancies, conditions, and equipment. Calculations for conductor ampacities, conductor fill specific branch circuits. Installation and NEC requirements for Photovoltaic (PV) Systems.	Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator.		Occ	LAB 3.0 3.0 3.0
ELA247	Advanced Construction Electricity III		Leadership and motivation techniques for the electrical industry, digital electronics, Boolean algebra and logic gates. Power quality for electrical systems, distributed generation, information technologies sites, uninterruptable power supplies, and fuel cells. Torque theory and applications. National Electrical Code (NEC) related to over current protective devices (OCPDs), types, sizing, and ratings. Tape rules, fault current calculations and ratings, motor branch circuits and circuit/transformer protection.	Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
ELA248	Advanced Construction Electricity IV		Introduction to fire alarm systems, requirements, devices, wiring methods and applicable codes; fire alarm blueprints and specifications. Cables, cabling systems, terminations, grounding and bonding. Telecommunications Industry Association/Electronic Industries Alliance (TIA/EIA) standards.	Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Hazardous location introduction and history, area classification, protection techniques, equipment, wiring requirements, and special occupancies. National Electrical Code (NEC) updates, installation of emergency and standby systems over 600 volts, remote-control, signaling, and power-limited circuit, specific raceways and cable tray systems, in-floor, multi-outlet assemblies, changes and update to the NEC.				
ELC103	Electrical/Mechanical Calculations		Fundamental calculations in arithmetic, algebra, trigonometry, descriptive geometry, economics, and probability. Application of theories and formulas to solve design, installation, maintenance, and troubleshooting problems for industrial, commercial, and residential electrical and mechanical systems.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ELC115	Motors, Controls and Wiring Diagrams	FAC115	Principles of three-phase motors. Wye and delta wiring. Calculation of motor current draw. Sequence of operation, wiring diagram and electrical components associated with industrial equipment. Procedures for evaluating electrical problems. Safety stressed.	Prerequisites: A grade of C or better in CON/HVA13 1 or permission of Department.		Occ	LEC 3.0 3.0 3.0
ELC119	Concepts of Electricity and Electronics		Introduction to theory and principles of electric circuits, magnetism and electromagnetism including basic motors, transformers and generators. Use of basic measuring instruments. Overview of Ohm's and Kirchhoff's law and	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			electronics in the modern world.				
ELC120	Solid State Fundamentals		Theory of operation of semi-conductor devices, component and system construction, operation, installation, and service. Specific and practical applications in relations to temperature, light, speed and pressure control as used in industry today. Includes amplifiers, power supplies, integrated circuits, alternating current (AC) and direct current (DC) drives, fiber optics, and safety.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ELC123	Residential Electrical Wiring and Codes		Analysis and interpretation of residential drawings, local codes and specific sections of the National Electrical Code. Including needed materials derived from plans and specifications and the proper procedures for wiring a residence and other special locations. Areas of focus include circuits, conductors, switches, outlets, heating, security, and communication systems.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
ELC124	Industrial Electrical Wiring and Codes		Industrial electrical power techniques of low, medium and high voltage systems. Selection of electrical distribution components, single and three phase systems, one-line diagrams, motors, transformers, protective devices, power factor, demand factor, conductor selection, system planning, grounding and energy management.	Prerequisites: A grade of C or better in ELC123 or permission of Instructor or admission to Electric League of Arizona program.		Occ	LEC 3.0 3.0 3.0
ELC125	Commercial Electrical Wiring and Codes		Commercial electrical power distribution techniques of low	Prerequisites: A grade of C or better in		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			voltage (under 600 volt) systems. Selection of electrical distribution components, single and three systems, one-line diagrams and conductor selection. System grounding, planning and over current protection.	ELC123 or permission of Instructor or admission to Electric League of Arizona program.			
ELC144	Basic Automated Systems Using Programmable Controllers		Principles of automated control systems. Principles and application of programmable controllers, control functions, hardware, logic, programming, documentation, troubleshooting, start-up, maintenance and operation. Commercial and industrial control applications. Introduction to commercial programmable controllers.	Prerequisites: A grade of C or better in ELC120 or permission of Instructor or admission to Electric League of Arizona program.		Occ	L+L 3.0 3.0 3.0
ELC160	Applied Electrical Codes I		Analysis of diagrams and application of current code interpretations. Includes local exceptions and practices. Review of the National Electrical Code (NEC) related to definitions, installations, wiring and protection, wiring methods, materials, and equipment.	Prerequisites: A grade of C or better in ELC119 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
ELC161	Applied Electrical Codes II		National Electrical Code (NEC) requirements for hazardous locations, special use and occupancies. Commercial, industrial and service locations. Fiber optics, communications and other state-of-the-art applications. Local inspection practices and requirements.	Prerequisites: A grade of C or better in ELC160 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
ELC162	Electrical Codes and Inspection I		Analysis of diagrams and application of current code interpretations. Includes	Prerequisites: A grade of C or better in (ELE100 and		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			local exceptions and practices	ELE101) or permission of Instructor.			
ELC164	Grounding and Bonding		Electrical theory and calculation of electrical current. Grounding and bonding terminology including National Electric Code (NEC) Articles 250. Interpreting code requirements for grounding and bonding. Code requirements for field installation and sizing.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ELC210	AC Machinery and DC Machinery		Principles and operation of AC (Alternating current) and DC (direct current) motors, generators, and alternators. Includes single-phase motors along with induction, synchronous, and wound-rotor types of three-phase motors. DC motors including shunt-field, series field, wound rotor, permanent magnet, stepper and brushless types.	Prerequisites: A grade of C or better in ELC119 or permission of Instructor or admission to Electric League of Arizona program.		Occ	LEC 3.0 3.0 3.0
ELC217	Motor Controls		Electrical symbols, line diagrams and logic. Contacts and starters, control devices, reversing circuits and power distribution systems. Magnetism and magnetic solenoids, reduced voltage starters, and circuits. Hand tools and safety procedures.	Prerequisites: A grade of C or better in ELC119 or permission of Department or Division or admission to Electric League of Arizona program.		Occ	L+L 3.0 3.0 3.0
ELC218	Variable Frequency Drives		Principles and operation of frequency controlled AC (Alternating current) motor drives, including current source inverters (CSI), variable voltage inverters (VVI) and pulse width modulated inverters (PWM). Heating, ventilation and air conditioning (HVAC) applications along with energy savings, motor	Prerequisites: A grade of C or better in ELC120 or permission of Instructor or admission to Electric League of Arizona program.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			pump sizing and torque load calculations.				
ELC219	Programmable Controllers		Principles and applications of programmable logic controls (PLC's). Numbering systems, control strategies, and ladder logic. Basic machine functions and operations to include programming, troubleshooting and maintenance. Application of PLC programming, operations and troubleshooting skills.	Prerequisites: A grade of C or better in ELC/FAC/HV A105 and ELC/FAC115 and ELC119 or permission of Instructor.		Occ	L+L 4.0 6.0 6.0
ELC296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
ELC296WB	Cooperative Education		Work-college experiences that involve the combined efforts of	Prerequisites: Completion of at least		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
ELC296WC	Cooperative Education	ELC296W D	Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at		Occ	LAB 3.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				least one class which is related to students major or career interest or with permission of Instructor.			
ELC296WD	Cooperative Education	ELC296W C	Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 20.0 0.0
ELC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
ELC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
ELC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
ELE100	Concepts of Electricity and Electronics		Principles of electric circuits, magnetism and electromagnetism including basic motors	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and generators. Use of basic measuring instruments. Includes an overview of electronics in the modern world				
ELE101	Beginning Algebra for Technology		Basic axioms of algebra, linear equations in one or two variables, operations on polynomials, rational expressions, simultaneous solutions of linear equations, laws of exponents.	Prerequisites: Score of 19 on Technical Mathematics placement test or a Grade of C or better in GTC107 or MAT082 or equivalent.		Occ	LEC 3.0 3.0 3.0
ELE105	Algebra-Trigonometry for Technology		Topics from college algebra and trigonometry essential to the study of electronics; polynomials, exponential and logarithmic functions, complex numbers, and trigonometric functions and identities.	Prerequisites: A grade of C or better in either ELE101 or MAT090 or MAT091 or MAT092 or equivalent or score of 16 on Technical Algebra placement test.		Occ	LEC 5.0 5.0 5.0
ELE111	Circuit Analysis I		Direct current (DC) and alternating current (AC) electric circuits. Ohm's law, Kirchoff's laws, series, parallel and series-parallel circuits, fundamentals of inductance and capacitance, and the transient behavior of circuits containing resistance and capacitance or resistance and inductance.	Prerequisites: None. Corequisites: MAT120, or MAT121, or MAT122, or equivalent.		Occ	L+L 4.0 6.0 6.0
ELE112	Circuit Analysis II		Alternating current (AC) and direct current (DC) circuits containing resistance and reactance. Detailed coverage of AC/DC circuit parameters, including theorems, impedance matching, and resonance	Prerequisites: A grade of C or better in ELE111.		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ELE121	Solid-State Devices and Circuits I		Theory of operation of semiconductor diodes and transistors. Bipolar junction transistor biasing and load-line analysis. Alternating Current (AC) equivalent circuits applied to small signal amplifiers. Characteristics of large signal and power amplifiers	Prerequisites: A grade of C or better in ELE111.		Occ	L+L 4.0 6.0 6.0
ELE131	Digital Logic and Circuits		Number systems, binary arithmetic, and Boolean algebra, combinational and sequential logic circuits, and memory elements.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
ELE161	Custom Electric Guitar Fabrication		Offered to guitar or bass players, artists, woodworkers or anyone who wants to learn the specialized skills of a luthier or the art of electric guitar crafting, maintenance, and setup. Fabricate and integrate a complete guitar neck and body, and finish with a combination of paint, stain, and clear coats.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
ELE162	Custom Acoustic Guitar Fabrication		Offered to guitar players, artists, woodworkers or anyone who wants to learn the specialized skills of a luthier or the art of acoustic guitar crafting, maintenance, and setup. Fabricate and integrate a complete guitar neck and body, and finish with a combination of paint, stain, and clear coats.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
ELE173	Fabrication Techniques		Introduction to electronic assembly safety practices and procedures, hand tool, and measuring devices. Includes basic and special assembly tools, fastener installation and removal tools, precision measuring tools, fabrication tools, torque measuring instruments,	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Electrostatic Discharge (ESD) awareness and procedures, basic soldering/desoldering, prototype and troubleshooting.				
ELE181	Computer Programming for Technology		Elementary computer programming techniques. Hands-on computer usage	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
ELE222	Solid-State Devices and Circuits II		Theory and application of differential and operational amplifiers. Power supplies and regulators; special devices and circuits.	Prerequisites: A grade of C or better in ELE112 and ELE121.		Occ	L+L 4.0 6.0 6.0
ELE241	Microprocessor Concepts		Architectures of selected microprocessors. Presentation of machine and assembly language programming	Prerequisites: A grade of C or better in ELE131.		Occ	L+L 4.0 6.0 6.0
ELE243	Microprocessor Applications	ELT243	Presents the microprocessor in computing and control applications. System hardware and software used to control the microprocessor system to perform input/output operations.	Prerequisites: A grade of C or better in ELE241.		Occ	L+L 3.0 5.0 5.0
ELE245	Advanced Microprocessors and Systems		Microprocessors and systems, in the expanding Internet of Things. Legacy, current, and future wired and wireless interfaces and protocols. Connecting modern software environments to real-world electronic hardware.	Prerequisites: A grade of C or better in (ELE131 and ELE181), or ELE241, or permission of Instructor.	ELE245 may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 3.0 3.0
ELE251	Electronic Measurements		Application and operation of common electronic and electrical test instruments including: oscilloscopes, analog and digital multimeters, digital counters and signal sources. Transducers, amplifiers, and filters, as they apply to instrumentation systems. Laboratory reports and documentation are emphasized	Prerequisites: A grade of C or better in ELE121.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ELE261	Communication Systems		Communication systems. Amplitude modulation (AM), frequency modulation (FM), single-sideband (SSB), radio receivers, pulse systems, radiation, antennas and wave propagation.	Prerequisites: A grade of C or better in ELE121 and ELE131. Corequisites: ELE222.		Occ	L+L 4.0 6.0 6.0
ELE263	Digital Data Communications		Overview of modern telephone system. Telephone switching and modulation techniques. Familiarization with AM(amplitude modulation) and FM(frequency modulaation) circuits. Operation of asynchronous and synchronous modems	Prerequisites: A grade of C or better in ELE121 and ELE241.		Occ	L+L 4.0 6.0 6.0
ELN100	Foundations of eLearning Design for K-12		Overview of eLearning design foundations for K-12 environment. Includes the history, characteristics, and theories of eLearning. Principles and models of instruction design as well as eLearning technologies and course management systems covered.	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ELN103	K-12 eLearning Technology and Media		Overview of technology and media used in K-12 eLearning environments. Covers types of media, learning settings, instructional strategies, and visual principles as well as current and future trends. Usage of audio and video technology included.	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ELN105	Classroom Management in K-12 eLearning		Procedures for management of the eLearning classroom. Emphasis on creating a supportive and engaging active learning environment for the distance learner. Covers characteristics of the distance learning student as well as procedures for creating a collaborative, integrated, and supportive learning environment.	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ELN106	Discipline and Behavior in K-12 eLearning		Overview of discipline and behavior issues in the K-12 eLearning environment. Includes classroom discipline theories and approaches to discipline. Also covers formalization of a personal system of discipline.	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ELN107	Parent Communication and Involvement in K-12 eLearning		Procedures for involving parents in K-12 eLearning. Includes law and public policy relating to compliance, student advocacy, and parental rights. Also covers parent-teacher communication issues as well as online education family involvement models.	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ELN108	Legal Issues in K-12 eLearning		Overview of legal issues and regulations in an online K-12 classroom. Intellectual property, privacy, Internet security,	Prerequisites: Must hold a Career and Technical Education		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and educational institution policies covered. Includes the Family Educational Rights and Privacy Act (FERPA) and Individuals with Disabilities Act (IDEA)	(CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.			
ELN109	Engaging K-12 eLearners		Overview of engaging K-12 learners in an eLearning environment. Phases of eLearning and eLearning activities covered. Tool usage and assessment emphasized.	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ELN111	K-12 eLearning Environments		Introduction to eLearning environments for K-12 teachers. Synchronous and asynchronous environments as well as online collaboration covered with an emphasis on considerations for K-12 students. Course management systems for K-12 learning environments also included.	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ELN112	Methods of Building and Facilitating eLearning: 9-12		Methods for building and facilitating eLearning for 9-12 students. Includes course design principles and methods as well as copyright and intellectual property issues. Also covers student activities facilitation, assessment,	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and online classroom management concerns.	special education teaching certificate, or permission of Department or Division.			
ELN113	Methods of Building and Facilitating eLearning: K-8		Methods for building and facilitating eLearning for K-8 students. Includes course design principles and methods as well as copyright and intellectual property issues. Also covers student activities facilitation, assessment, and online classroom management concerns. K-8 learner special considerations also included.	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ELN114	Building Community with Online Learners		Procedures for building a community in an eLearning environment. Includes personalization of learning, collaborative learning, and transformative learning. Foundations for building an online community and technology usage also covered	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ELN118	Motivation and the Online Learner		Overview of motivation in the online classroom. Includes motivation theories, self-esteem vs. self-efficacy, and learner expectations as well as motivational problems and benefits of a motivational online learning environment. Facilitator's role, grouping of students, and assessment creation as motivation tools also covered	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ELN121	Evaluating K-12 eLearning		Procedures for evaluating K-12 eLearning. Includes procedures for creating and integrating various types of student and	Prerequisites: Must hold a Career and Technical Education (CTE),		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			course evaluation into the eLearning process.	provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.			
ELN122	K-12 eLearning Assessment Creation		Procedures for creating assessments for K-12 eLearning environment. Emphasis on importance of and plans to measure learning as well as implications for K-12 eLearners. Covers learning outcomes, performance objectives, types of assessments. Online student interaction and collaboration included.	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ELN290AA	eLearning Design Internship		eLearning design work experience in industry or education. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.	ELN290AA may be repeated for a total of three (3) credit hours	Acad	L+L 1.0 1.0 1.0
ELN290AB	eLearning Design Internship		eLearning design work experience in industry or education. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.	ELN290AB may be repeated for a total of four (4) credit hours.	Acad	L+L 2.0 2.0 2.0
ELN290AC	eLearning Design Internship		eLearning design work experience in industry or education. Eighty (80) hours of designated work per credit	Prerequisites: Permission of Department or Division.		Acad	L+L 3.0 3.0 3.0
ELR131	Electrical Systems		Electricity related to residential and light commercial applications, to include common electrical components, alternating current (AC) and direct current (DC) circuits, and electrical safety. Provides an introduction to reading,	Prerequisites: None.		CLK	140

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			interpreting, and creating wiring diagrams and the application of electrical power. Operation and use of specific meters, tools, and an introduction to the National Electrical Code (NEC).				
ELR132	Distribution Panels, Wiring, and Circuit Protection in Electrical Systems		Course covers construction drawings and code related to conductors and cables (types, ratings), residential and commercial applications, wire sizes, utilities, meters, disconnects, breakers, grounding and bonding, rough-in wiring and circuit safety protection.	Prerequisites: None.		CLK	140
ELR133	Conduit, Raceways, and Termination in Electrical Systems		Course covers termination and the implementation of electricity in a facility. Considers topics related to box capacities, raceways, conduit sizes, termination practices, wire trays, and finish wiring.	Prerequisites: None.		CLK	120
ELR133DC	Conduit, Raceways, and Termination in Electrical Systems		Course covers termination and the implementation of electricity in a facility. Considers topics related to box capacities, raceways, conduit sizes, termination practices, wire trays, and finish wiring.	Prerequisites: None.		CLK	140
ELR234	Electric Power Distribution		Course covers the theory and applications of distribution of power from utilities to residential and commercial sites, including transformers and commercial electrical distribution equipment and services. Also includes safety, codes, and interpretation of construction drawings and specifications.	Prerequisites: None.		CLK	81

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ELR234DC	Electric Power Distribution		Course covers the theory and applications of distribution of power from utilities to residential and commercial sites, including transformers and commercial electrical distribution equipment and services. Also includes safety, codes, and interpretation of construction drawings and specifications.	Prerequisites: None.		CLK	70
ELR235	Motors: Theory and Application		Course covers motor and motor controls in electricity. Explains how to select and install relays and troubleshoot control circuits. Distinctions between alternating current (AC) and direct current (DC) motors, motor speed control, design and operation characteristics, and connections and terminal markings	Prerequisites: None.		CLK	120
ELR235DC	Motors: Theory and Application		Course covers motor and motor controls in electricity. Explains how to select and install relays and troubleshoot control circuits. Distinctions between alternating current (AC) and direct current (DC) motors, motor speed control, design and operation characteristics, and connections and terminal markings	Prerequisites: None.		CLK	70
ELR236	Industrial Wiring Applications		Course covers a broad variety of electrical wiring applications, including healthcare facility, heating, ventilation, and air conditioning (HVAC), standby, emergency, and fire alarm systems.	Prerequisites: None.		CLK	81
ELR236DC	Industrial Wiring Applications		Course covers a broad variety of electrical wiring applications, including healthcare facility, heating,	Prerequisites: None.		CLK	70

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			ventilation, and air conditioning (HVAC), standby, emergency, and fire alarm systems.				
ELT100	Survey of Electronics		An introduction to the field of electronics for those who may not intend to specialize in electronics. Essentially nonmathematical in nature; includes familiarization with a wide range of electronic components. Application to electronic systems, such as radio transmitters and receivers - both AM(amplitude modulation) and FM(frequency modulation), television transmitters and receivers, logic control, and computers. Application also to automotive electronics	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ELT101	Mathematics for Electronics I		Basic principles of Algebra with applications to the analysis of electronic circuits. Emphasis on the use of the calculator for conversions and DC(direct current) circuit problems	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ELT102	Mathematics for Electronics II		The study of simultaneous equations, quadratic equations, trigonometric relationships, periodic functions and logarithms as applied to AC(alternating current) circuit analysis. Application of the scientific calculator to technical problem solving in electronics	Prerequisites: A grade of C or better in ELT101 or equivalent.		Occ	LEC 3.0 3.0 3.0
ELT113	Basic Electronics		Direct and alternating current electrical circuits. Theory and practical lab experience, using the appropriate test equipment and computer solutions. Ohm's Law,	Prerequisites: A grade of C or better in ELT102 or Corequisites: ELT102 or equivalent.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Kirchhoff's Laws, and various network theorems applied to the study and analysis of series, parallel, and series-parallel circuit configurations. Includes complex algebra, impedance, frequency response, and resonance.				
ELT131	Digital and Logic Circuits		Digital concepts and fundamentals, number systems and codes, Boolean algebra and combinational logic, logic reduction techniques, and logic hardware. Memories and programmable logic arrays. Hands-on hardware and computer-aided logic design experiments.	Prerequisites: A grade of C or better in ELT113, or ELC119, or permission of Instructor.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
ELT195	Solid State Electronics		Characteristics and use of solid state devices in practical circuit applications. Circuit analysis techniques and computer simulations. Includes, diodes, transistors, four-layer devices, operational amplifiers, and interfacing devices	Prerequisites: A grade of C or better in ELT113 or permission of Department or Division.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
ELT243	Microprocessor Applications	ELE243	Presents the microprocessor in computing and control applications. System hardware and software used to control the microprocessor system to perform input/output operations.	Prerequisites: A grade of C or better in ELE241.		Occ	L+L 3.0 5.0 5.0
ELT251	Electronic Instrumentation		Electronic instruments and their usage in measuring and analyzing electronic circuits. Includes both analog and digital meters, oscilloscopes, and digital logic analyzers. Covers automatic test equipment, various transducers, and reliability requirements.	Prerequisites: A grade of C or better in ELT195, or ELC120, or permission of Department or Division.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ELT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
ELT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites:		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
ELT296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
ELT296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE	average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
ELT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
ELT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
ELT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
EMC101	CPR/Basic Cardiac Life Support		Designed to train students in the skills of cardiopulmonary resuscitation (CPR) to include mouth-to-mouth, mouth-to-mask, cardiac compression, stabilization of adult, infant, and child victims with airway obstruction, respiratory, and cardiac arrest.	Prerequisites: Admission into the Emergency Medical Technology program. Successful completion of RDG100 or higher or appropriate reading placement into CRE101.	To receive an American Heart Association (AHA) Basic Life Support (BLS) course completion card and continue in the EMT program, students in the course must pass both the skills and written exams.	CLK	6

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EMC101DC	CPR/Basic Cardiac Life Support		Designed to train high school students in the skills of cardiopulmonary resuscitation (CPR) to include mouth-to-mouth, mouth-to-mask, cardiac compression, stabilization of adult, infant, and child victims with airway obstruction, respiratory, and cardiac arrest.	Prerequisites: Admission into the Emergency Medical Technology program. Successful completion of RDG100 or higher or appropriate reading placement into CRE101.	To receive an American Heart Association (AHA) Basic Life Support (BLS) course completion card and continue in the EMT program, students in the course must pass both the skills and written exams.	CLK	6
EMC102	Emergency Medical Responder		A comprehensive course to train a lay person to provide care for patients suffering sudden illness or injury. For members of law enforcement agencies, industry, and the private sector.	Prerequisites: EMC101 or with Program Manager approval.		CLK	40
EMC104	Basic Emergency Medical Technology		Designed as the Emergency Medical Technician (EMT) lecture and lab to prepare students for scope of practice and standard of care with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical and trauma emergencies and non-emergencies. Scenario-based learning applied to the techniques of emergency medical care is in accordance with national and state curriculum. Students will participate in the simulated EMT practicum on campus,	Prerequisites: EMC101 or with Program Manager approval.		CLK	214

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			which demonstrates the skills, knowledge, and abilities learned in the lecture and lab.				
EMC104DC	Basic Emergency Medical Technology		Designed as the Emergency Medical Technician (EMT) lecture and lab to prepare students for scope of practice and standard of care with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical and trauma emergencies and non-emergencies. Scenario-based learning applied to the techniques of emergency medical care is in accordance with national and state curriculum. Students will participate in the simulated EMT practicum on campus, which demonstrates the skills, knowledge, and abilities learned in the lecture and lab.	Prerequisites: EMC102 or with Program Manager approval.		CLK	174
EMC105	Hazardous Materials Awareness and Operations		Basic methods of recognition and identification based upon the chemical and physical properties of hazardous materials; basic safety procedures when utilizing specific types of protective clothing and equipment; basic tactical information relating to scene management. Satisfies minimum standards for certification testing set forth by the current ProBoard and/or Arizona State Training and Certifying Authority.	Prerequisites: None.		CLK	40
EMC108	Emergency Medical Services and Fire Preparatory Academy		This course is designed specifically for individuals seeking a	Prerequisites: Admission into the		CLK	300

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			<p>career in the fire-medical service and addresses foundational emergency medical technology, hazardous materials, and firefighting content material, as well as meeting two of the prerequisites for the Fire Department Operations course also known as the "Fire Academy" (FSC102). These two prerequisites are Emergency Medical Technology (EMT/FSC104) and Hazardous Materials (FSC105). Upon successful completion of the course, the participant will be eligible to sit for the EMT and Hazardous Materials (Haz-Mat) certification examinations. The course meets current United States Department of Transportation (USDOT) national standard education guidelines for emergency medical technicians. Course teaches techniques of emergency medical care in accordance with national and state curriculum. Study of the human body, patient assessment, treatment of medically or traumatically compromised patients, special hazards, medical operations, intravenous (IV) monitoring, patient-assisted medication administration, automated external defibrillators (AEDs), and blood-glucose monitoring. The course meets the current Hazardous Materials First Responder certification</p>	<p>Emergency Medical Services and Fire Preparatory Academy program. Successful completion of RDG100 or higher or appropriate reading placement into CRE101.</p>			

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			requirements for the Arizona Center for Fire Service Excellence. The course will cover basic methods of recognition and identification based upon the chemical and physical properties of hazardous materials, basic safety procedures when utilizing specific types of protective clothing and equipment, and basic tactical information relating to scene management. Confined space operations in accordance with the National Fire Protection Agency.				
EMC110	Wildland Firefighter		Basic-level course for individuals with little or no experience in the wildland environment. Preparation for performing as a beginning-level wildland firefighter with an organized fire department engine or hand crew. Satisfies minimum standards for certification testing set forth by the National Wildland Coordinating Group (NWCG).	Prerequisites: None.		CLK	50
EMT101	Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers		Designed to provide the allied healthcare provider with the knowledge and skills to perform Basic Life Support (BLS) according to current guidelines for emergency cardiovascular care (ECC).	Prerequisites: None.	EMT101 may be repeated for credit.	Occ	L+L 0.5 0.5 0.5
EMT101AB	Basic Life Support/Cardiopulmonary Resuscitation (CPR) Practicum for Health Care Providers		Designed to assess the allied healthcare provider in the skills of Basic Life Support (BLS) according to current guidelines for emergency cardiovascular care (ECC).	Prerequisites: Successful completion of Healthcare Provider CPR AED Online Part 1 course from an American	EMT101AB may be repeated for credit.	Occ	L+L 0.25 0.25 0.25

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Heart Association (AHA) certified program.			
EMT102AB	Emergency Medical Responder		A comprehensive course to train a lay person to provide care for patients suffering sudden illness or injury. For members of law enforcement agencies, industry, and the private sector.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
EMT104	Emergency Medical Technology		Designed as the Emergency Medical Technician (EMT) lecture to prepare students for scope of practice and standard of care with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical and trauma emergencies and non-emergencies.	Prerequisites: Appropriate score on Reading placement test to demonstrate minimum tenth grade level reading, or completion of an Associate's degree or higher from an accredited institution.	EMT104 students must meet National Registry of EMT requirements for certification. Additional information available at nremt.org. EMT104 may be repeated for credit.	Occ	LEC 10.0 10.0 10.0
EMT104AA	Practical Skills Testing		Manipulative skills testing of specific skills identified by the scope of practice for EMT Basic Students. Successful completion qualifies the student for EMT Basic Written Exam for National Certification.	Prerequisites: None. Corequisites: EMT104.		Occ	LAB 0.5 0.5 0.5
EMT104AB	Applied Practical Studies for Emergency Medical Technology		Simulation of actual emergency responses, with practical application of techniques and skills covered in EMT curricula. Scenario based learning applied to the techniques of emergency medical care in accordance with national and state curriculum. Practical application of anatomy, physiology, patient assessment, and treatment of medically or traumatically	Prerequisites: None. Corequisites: EMT104.	EMT104AB may be repeated for credit.	Occ	LAB 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			compromised patients, special hazards and medical operations. Also includes patient-assisted medication administration, semi-automatic external defibrillator and blood glucose monitoring. Students operate in outside, scenario based environments.				
EMT104LL	Emergency Medical Technology Practicum		Designed as the simulated Emergency Medical Technician (EMT) practicum in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical and trauma emergencies. Provides scenario based learning applied to the techniques of emergency medical care in accordance with national and state curriculum.	Prerequisites: A grade of C or better in EMT104 or permission of Instructor or Corequisites: EMT104.	EMT104LL may be repeated for credit. Students must meet National Registry of EMT requirements for certification. Additional information available at nremt.org.	Occ	LAB 2.0 3.5 3.5
EMT106	Ambulance Operations		Practical application of rules and regulations governing care and transport of patient. Inventory, methods of disinfection, and charge procedures covered. Practical and defensive driving techniques and maintenance of the ambulance demonstrated and practiced, according to the U.S. Department of Transportation (DOT) National Highway Traffic Safety Administration (NHTSA).	Prerequisites: EMT at any level of certification.		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EMT108	Tactical Safety and Street Survival for EMTs		Principles of response to emergencies in potentially dangerous situations. Emphasis on recognizing and responding to potentially violent situations, including active crime scenes and domestic terrorism. Emphasis on personal protection, de-escalation, communication skills, defensive tactics, and interaction with local and national public safety and law enforcement professionals.	Prerequisites: Healthcare provider certification or licensure or police officer with POST certification. Level 1 DPS fingerprint clearance card or permission of Department or Division.		Occ	L+L 3.0 3.0 3.0
EMT116	Emergency Medical Communications (EMD)		Designed to educate and train individuals as the emergency link among the community, health care providers, and law enforcement agencies. Comprehensive program to educate and train in procedures of communications, interrogation, assessment, and deployment. Includes interactive computer lab and scheduled observation with assignment at a dispatch center.	Prerequisites: A grade of C or better in EMT101 or Corequisites: EMT101 or any current American Red Cross or CPR for the Professional Rescuer or American Heart Association Basic Life Support Health Care Provider validation.		Occ	L+L 1.5 1.8 1.8
EMT120	Spanish For Emergency-Care Providers		Participative course for prehospital and other emergency-care providers. Vocabulary, pronunciations, voice inflections, phrases, conversational terms, and methods of interviewing the ill or injured victim. Cultural information to facilitate approach and interaction with the victim, family, and/or significant other. Documentation of the interview content on the prehospital encounter form.	Prerequisites: Certified EMT or licensed medical personnel.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EMT165	Pediatric Education for Prehospital Providers: Basic		An interactive, scenario-based course designed for Basic EMTs (Emergency medical technicians) who are not yet practicing in the field. Enables these EMTs to perform a rapid assessment of sick and injured children in a variety of different circumstances. Includes use of pediatric assessment triangle, developmental differences, injury prevention, basic airway management techniques, recognition of medical emergencies such as pediatric trauma, mechanism of injury, submersion events, children with special health care needs, abuse and neglect, child and family interactions, use of specialized equipment, and special issues in pediatric transportation. Treatment to children is in accordance with recommendations of the American Academy of Pediatrics.	Prerequisites: A grade of C or better in EMT/FSC104 or permission of Instructor.		Occ	L+L 2.0 2.87 2.87
EMT200	Refresher Course for Certified Emergency Medical Technicians		Designed to meet National and Arizona Department of Health Services (A-DHS) recertification for EMTs. Enhances the knowledge base of the Emergency Medical Technician (EMT) and reinforces basic skills competencies.	Prerequisites: Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer or permission of Instructor.	EMT200 may be repeated for credit.	Occ	L+L 2.0 2.7 2.7
EMT200AA	EMT Certification Renewal Challenge		Designed to contribute to Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS) recertification requirements for Emergency Medical	Prerequisites: Current validation in Basic Life Support (BLS) Health Care Provider/Prof		Occ	LEC 0.6 0.6 0.6

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Technician (EMT) according to the U.S. Department of Transportation (DOT) EMT National Curriculum and the Arizona EMT Refresher Curriculum Guidelines.	Professional Rescuer or proof of current registry with the National Registry of Emergency Medical Technicians (NREMT).			
EMT200AB	EMT-Basic Certification Expanded Refresher Challenge		Designed to contribute to Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS) recertification requirements for Emergency Medical Technician Basic (EMTB) according to the U.S. Department of Transportation (DOT) EMT-Basic National Curriculum and the Arizona EMT Basic Refresher Curriculum Guidelines.	Prerequisites: Current Basic Life Support American Heart Association Healthcare Provider CPR or equivalent and current EMT Basic certification in the state of Arizona Must be currently functioning as an EMT Basic.		Occ	LEC 1.0 1.0 1.0
EMT201	Interactive Basic EMT Refresher		Designed to contribute to Arizona Department of Health Services recertification requirements for Emergency Medical Technicians (EMT) according to the US Department of Transportation (DOT) EMT-Basic National Curriculum and the Arizona Basic EMT Refresher Curriculum Guidelines. Enhances the knowledge base of the EMT. Updates a wide variety of subjects including respiratory and cardiac emergencies, and interaction with advanced life support providers	(Current EMT Basic certification in the state of Arizona or proof of current registry with the National Registry of Emergency Medical Technicians [NREMT]) and validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer.		Occ	L+L 1.0 2.2 2.2
EMT215	Stress and Emergency Services Professionals		Participative course designed to familiarize students with differences which exist in the	Prerequisites: Currently employed as prehospital-		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			socioeconomic, cultural, organizational, and technologic environments and the distress that can occur to emergency-care providers functioning in those arenas. Physiologic, psychologic and behavioral manifestations of distress as it relates to emergency responders. Explores distress management options with emphasis on individual techniques and organizational programs.	care provider or registered nurse working in the prehospital setting.			
EMT230	Advanced Concepts for EMTs		Designed to meet Arizona Department of Health Services recertification requirements for EMTs. Enhances the knowledge base of the Emergency Medical Technician (EMT) and incorporates new information into daily practice. Updates a wide variety of subjects including medical and trauma emergencies, cardiac life support, interaction with advanced life support providers, and emergency scene management	Current EMT certification in the state of Arizona.		Occ	L+L 1.5 1.5 1.5
EMT238	Vehicular Extrication and Patient Stabilization	FSC238	Participative course designed for the Emergency Medical Technicians (EMT). Incorporates new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene management, including size-up, disentanglement, victim stabilization for single and multi-victim	Basic EMT certification current enrollment in an EMT-Basic program nurse with emergency department experience or law enforcement personnel or permission of Instructor.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures to selected victim scenarios				
EMT245	Trauma Management I		Designed to instruct prehospital care personnel in the critical skills necessary to manage the trauma victim and the emergency scene through the Incident Command System (ICS). Enhances basic emergency medical technology (EMT) skills by focusing on emergency care interventions. Provides exposure to victim assessment, initial treatment, resuscitative techniques, victim stabilization, transportation of the victim to an emergency care facility, and documentation	Basic EMT certification or nurse with emergency room experience or permission of Department or Division.		Occ	L+L 2.0 3.5 3.5
EMT258	Victimology and Crisis Management in Public Safety	AJS/FSC258	Victimology, the criminal justice system, techniques of crisis intervention and management, and the importance of a multicultural and global perspective. Includes violent crimes, sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, developing effective coping skills of victims and responders, appropriate community resources, and the cultural responsiveness of the justice system.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EMT260	Advanced Airway Management for EMTs		Designed to instruct emergency care personnel in the critical skills necessary to establish and maintain an airway of the traumatized or medically compromised patient. Airway skills include oxygen therapy with all adjuncts, administration of pharmaceuticals via the endotracheal (ET)/pharyngeal tracheal lumen airway (PTLA), management of the airway as a route for medications, and invasive airway procedures. Content concurrent with Department of Transportation Guidelines and the American College of Surgeons Division on Trauma Standards of Care.	Prerequisites: Certified EMT or licensed registered nurse with emergency department experience; EMT or emergency department licensed registered nurse with Medical Control physician supervision according to Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS).		Occ	L+L 2.0 2.0 2.0
EMT264	Vascular Access for EMTs		Includes review of anatomy of the circulatory system. Skills include peripheral intravenous cannulation techniques, fluid resuscitation, obtaining venous blood samples for laboratory analysis, infection control techniques for the safety of self and victim, and complications of intravenous cannulation; each and all with medical control. Content concurrent with American College of Surgeons Committee on Trauma, Standards of Care	(EMT-Basic or registered nurse with emergency department experience or licensed physician or physician assistant) or permission of Instructor.		Occ	L+L 1.0 1.0 1.0
EMT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
EMT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
EMT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE				
ENG071	Preparatory Academic Writing I		Emphasizes preparation for college level composition and related reading tasks with a focus on communicating through complete, grammatically correct writing, organized to communicate a central idea.	Prerequisites: Appropriate writing placement test score or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ENG081	Preparatory Academic Writing II		Emphasizes preparation for college-level composition and related reading tasks with a focus on critical writing, reading, and thinking skills and processes	Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG071 or ESL077, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ENG091	Preparatory Academic Writing III		Emphasizes preparation for first year composition with a focus on critical writing, reading, and thinking skills and processes at an increased level of academic complexity.	Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG081 or ESL087, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ENG095AA	Tutored Developmental Writing: Generating and Drafting		Structured tutorial assistance in writing skills to help students achieve success in a developmental writing course in which they are concurrently enrolled. Emphasis on generative writing skills.	Prerequisites: None. Corequisites: ENG081 or ENG091.	ENG095AA may be repeated for credit.	Acad	L+L 1.0 1.0 1.0
ENG095AB	Tutored Developmental Writing: Revising and Editing		Structured tutorial assistance in writing skills to help students achieve success in a developmental writing course in which they are concurrently enrolled. Emphasis on revising and editing skills.	Prerequisites: None. Corequisites: ENG081 or ENG091.	ENG095AB may be repeated for credit.	Acad	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ENG100AA	American-English Spelling System		American-English spelling system rules, mnemonic devices.	Prerequisites: Appropriate English placement test score, or a grade of C or better in ENG091 or ESL097 or permission of Instructor.		Acad	LEC 1.0 1.0 1.0
ENG100AB	Vocabulary Development		Latin and Greek derivatives, development of competency and discrimination in word choice, specialized vocabulary.	Prerequisites: Appropriate English placement test score or a grade of C or better in ENG091 or ESL097 or permission of Instructor.		Acad	LEC 1.0 1.0 1.0
ENG100AC	The Mechanics of Written English		Review of the mechanics of written English, including punctuation, arbitrary marks and usages, capitalization, agreement, tense, and sentence patterns.	Prerequisites: Appropriate English placement test score or a grade of C or better in ENG091 or ESL097 or permission of Instructor.		Acad	LEC 1.0 1.0 1.0
ENG100AD	Grammar and Usage		The social aspects of grammar and usage, including appropriate levels of formal and informal language.	Prerequisites: Appropriate English placement test score or a grade of C or better in ENG091 or ESL097 or permission of Instructor.		Acad	LEC 1.0 1.0 1.0
ENG100AE	Composition Skills		Developing generative and evaluative writing skills using selected software programs.	Prerequisites: Appropriate English placement test score or a grade of C or better in ENG091 or ESL097 or permission of Instructor.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ENG101	First-Year Composition		Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total.	Prerequisites: Appropriate writing placement test score, or (a grade of C or better in ENG091, or ESL097, or WAC101), or (a grade of B or better in ALT100), or (a grade of C in ALT100 and Corequisites: ENG101LL, or ENG107LL, or WAC101, or ENG100A+), or (a grade of C or better in ESL202 and Corequisites: ENG101LL, or ENG107LL, or WAC101, or ENG100A+).		Acad	LEC 3.0 3.0 3.0
ENG101LL	First-Year Composition Lab		Supplemental instruction for composition courses. Focus on developing effective writing processes to address a range of rhetorical situations.	Prerequisites: Appropriate writing placement test score, or (a grade of C or better in ESL202. Corequisites: ENG101, or ENG107).		Acad	LAB 1.0 3.0 3.0
ENG102	First-Year Composition		Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total.	Prerequisites: A grade of C or better in ENG101.	Course Attribute(s): General Education Designation : First-Year Composition - [FYC] Arizona Shared Unique Number	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					SUN#: ENG 1102		
ENG107	First-Year Composition for ESL		Equivalent of ENG101 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total.	Prerequisites: Appropriate writing placement test score, or (a grade of C or better in ENG091, or ESL097, or WAC101), or (a grade of B or better in ALT100), or (a grade of C in ALT100 and Corequisites: ENG101LL, or ENG107LL, or WAC101, or ENG100A+), or (a grade of C or better in ESL202 and Corequisites: ENG101LL, or ENG107LL, or WAC101, or ENG100A+).		Acad	LEC 3.0 3.0 3.0
ENG107LL	First-Year Composition Lab for ESL		Equivalent of ENG101LL for students of English as a Second Language (ESL). Supplemental instruction for composition courses. Focus on developing effective writing processes to address a range of rhetorical situations.	Prerequisites: Appropriate writing placement test score, or (a grade of C or better in ESL202. Corequisites: ENG101, or ENG107).		Acad	LAB 1.0 3.0 3.0
ENG108	First-Year Composition for ESL		Equivalent of ENG102 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing	Prerequisites: A grade of C or better in ENG107.	Course Attribute(s): General Education Designation : First-Year Composition - [FYC]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total.				
ENG111	Technical and Professional Writing		Covers analyzing, planning, organizing, researching, and writing correspondence, reports, and presentations for specific work-related audiences. Includes integrating data and graphics into work-related documents and presentations.	Prerequisites: ENG101 with a grade of C or better or permission of Instructor.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
ENG183	Basic Manuscript Writing: Fiction		Basic skills and techniques used by the professional fiction writer in writing fiction for publication, including characterization, plot development, writing dialogue, setting scenes, and establishing mood. Emphasis on writing scenes.	Prerequisites: None.	ENG183 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ENG200	Reading and Writing About Literature		Emphasis on critical analysis of various genres of literature; includes study of necessary terminology, introduction to methods of literary criticism, and practice in interpretation and evaluation	Prerequisites: A grade of C or better in ENG102.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
ENG205	Nature of Poetry		A foundational course which focuses on the reciprocal nature of reading and writing poetry as well as acquiring a "critical vocabulary" for the appreciation of poetry. Examines the technical, cultural and aesthetic sources of established poets as well as work	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			produced by student writers. Explores the creative writing process as well as poetic themes, styles and perspectives that contribute to the writing of original student poetry				
ENG210	Creative Writing		Skills and techniques used in the production of marketable materials for contemporary publications that buy prose fiction, poetry, and expository articles.	Prerequisites: A grade of C or better in ENG102 or permission of Department or Division.	ENG210 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ENG211	Screenwriting		Principles and techniques necessary in planning, researching, and writing screenplays.	Prerequisites: A grade of C or better in ENG101 and ENG102 or permission of Instructor.	ENG211 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ENG213	Introduction to the Study of Language		Study of language as code; phonetics, phonology, morphology, syntax, semantics; language acquisition; historical and socio-linguistics	Prerequisites: A grade of C or better in ENG102 or ENG111 or permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
ENG215	Strategies of Academic Writing		Advanced course in techniques of analyzing and writing academic expository prose. Writing to be research based.	Prerequisites: A grade of C or better in ENG102 or ENG111 or permission of Instructor.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
ENG216	Persuasive Writing on Public Issues		Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers research based	Prerequisites: A grade of C or better in ENG102.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ENG217	Personal and Exploratory Writing		Using writing to explore one's self and the world one lives in; emphasis on journal writing as a source and inspiration for public writing	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
ENG218	Writing About Literature		Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. For non-English majors	Prerequisites: A grade of C or better in ENG102.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
ENG235	Magazine Article Writing		Basic skills and techniques used by professional writers for publication in magazines. Includes analyzing markets, identifying article slant, research techniques, editing, and submission procedures. Emphasis on nonfiction.	Prerequisites: None.	ENG235 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ENG295	Teaching Composition in the Two-Year College		Overview of the theoretical and pedagogical strategies of teaching composition in the community college.	Prerequisites: Bachelor's degree and permission of Instructor.		Acad	LEC 3.0 3.0 3.0
ENG296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				(students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ENG296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
ENG296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and	Prerequisites: Completion of at least twelve (12)		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			employers to accomplish an outcome related to the career objectives of the students.	college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ENG296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				student's major or career interest or with permission of the Instructor.			
ENG298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
ENG298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
ENG298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
ENH110	Introduction to Literature		Introduction to international literature through various forms of literary expression; e.g., poetry, drama, essay, biography, autobiography, short story, and novel. Provides a global overview of literature with special emphasis on diverse cultural contributions of women, African Americans, Asian Americans, Hispanic Americans, and Native Americans	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH111	Literature and the American Experience		Introduction to the foundations and diversity of American culture through a survey of its literature, including minority and women writers. Exploration of various facets of American culture including frontier, regional, rural, and urban life; ethnic, racial, and immigrant experience; and political and social philosophies	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ENH112	Chicano Literature		Introduction to the works of Mexican-American writers of the Southwest. Samples poetry, fiction, and essays viewed in their relationship to American cultural heritage and to contemporary culture	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					: Humanities, Arts and Design - [HU]		
ENH113	Writers/Directors and Current Issues		In-depth analysis of literary texts by contemporary writers/directors throughout the world, including essayists, journalists, playwrights, novelists, directors, short story writers, and/or poets. Examines perspectives representing a variety of cultures. Critical responses to current issues of worldwide interest examined, including topics as environment, technology, medicine, economics, politics, education, human rights, law and order.	Prerequisites: None.	ENH113 may be repeated for a total of six (6) credit hours. Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH114	African-American Literature		Survey of major African-American writers from Colonial period through the present; analysis of trends and movements within African-American literary history; analysis of literary types and selected works	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH117	Rap Literature: The Oral Tradition		Survey of selected rap poetry looking at the oral tradition of Africa, the Caribbean, and the United States as precursors to East Coast, West Coast, Southern, North Central, and International development of the genre. Investigation of cultural environments, historical events, competitions (the	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			"battles"), artists' biographies, and parallel art forms as they relate to the analysis of the genre and its themes				
ENH120	The Literature of Science Fiction		Surveys the last one hundred and fifty years of Science Fiction literature. Investigates the similarities between Science Fiction and other imaginative literatures Examines the Science Fiction genre, sub genres, and themes from a variety of perspectives, as well as social issues	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ENH130	Mystery Fiction from the Nineteenth Century to the Present		A study of mystery fiction as a literary genre and as a reflection of culture through the writings of significant authors	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ENH140	Representations of Society in Literature and Film		Explores how a particular field of endeavor is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning.	Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score.		Acad	LEC 3.0 3.0 3.0
ENH140AA	Sports in Literature and Film		Explores how sports are and have been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on	Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design -	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			analysis of narratives' form and content, and the construction of meaning.		[HU] Common Competency Course		
ENH140AB	Business in Literature and Film		Explores how business is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning.	Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score.		Acad	LEC 3.0 3.0 3.0
ENH140AC	Science in Literature and Film		Explores how science is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning.	Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score.		Acad	LEC 3.0 3.0 3.0
ENH140AD	Art in Literature and Film		Explores how art is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and	Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the construction of meaning.				
ENH140AE	Education in Literature and Film		Explores how education is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning.	Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score.		Acad	LEC 3.0 3.0 3.0
ENH140AF	Law in Literature and Film		Explores how law is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning.	Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score.		Acad	LEC 3.0 3.0 3.0
ENH140AG	Medicine in Literature and Film		Explores how medicine is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning.	Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ENH190	Introduction to US Ethnic Literature		Introduction to the US ethnic literatures of African Americans, Arab Americans, Asian Americans, Latinas/os, Native Americans, Mixed Race, and other emerging ethnic groups through various expressions. Examines the interconnections of the various experiences of racialized groups living in the US. Provides ethnic US literature a global context through study of the interconnections with the literatures of Africa, Asia, Latin America, and Oceania. Focus on literary production of at least four specific US ethnic groups and relevant international literatures.	Prerequisites or Corequisites: ENG101 or ENG107.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH201	World Literature Through the Renaissance		Examines a selection of the world's literary masterpieces within their cultural contexts from ancient times through the Renaissance. Analyzes the influences of major literary philosophies, themes, genre, and styles. Assesses the contributions of major writers. Introduces the terminology of literary analysis	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH202	World Literature After the Renaissance		Includes a selection of the world's literary masterpieces from the Renaissance to modern times	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					General Education Designation : Humanities, Arts and Design - [HU]		
ENH204	Introduction to Contemporary Literature		Examines the work of major writers in poetry, fiction and drama from 1945 to the present. Examines important movements that have developed within these genre since 1945	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH206	Nature and Environmental Literature		Investigates major themes in nature and environmental writing. Explores relationship between humanity and the environment as expressed through fiction, non-fiction, and poetry. Examines how literature drives attitudes and policies	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH214	Poetry Study		Involves reading, discussing, and analyzing poetry of various forms and from selected periods	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH220	Gender, Media, and Culture		Introduction to gender and its intersections with race, ethnicity, class, sexuality, nationality, ability, and country of origin in media. Examines film, television, popular culture, advertising, gaming, print and digital media, music and other forms of media.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ENH221	Survey of English Literature Before 1800		Emphasizes the social and political backgrounds as well as the form and content of English literature from Anglo-Saxon times to the end of the eighteenth century.	Prerequisites: A grade of C or better in (ENG101 or ENG107) or equivalent.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH222	Survey of English Literature After 1800		Emphasizes the social and political backgrounds as well as the form and content of English literature in the nineteenth and twentieth centuries	Prerequisites: A grade of C or better in (ENG101 or ENG107) or equivalent.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH230	Introduction To Shakespeare		Introduces Shakespeare the playwright, the sonneteer, the linguist, and the citizen of the 17th century. Considers the major tragedies, comedies, histories, and sonnets; focuses on the use of language; and connects the writer to the time. Some emphasis on Shakespeare's influence through the centuries, noting parallels between the late 16th century and the late 20th century	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH231	Introduction to Shakespeare: The Early Plays		Introduces Shakespeare, the playwright and linguist, and the late 16th century. Considers representative comedies, histories, and tragedies from Shakespeare's early period, from 1590-1599. Focuses on the use of language and connects the writer to his historical era. Also considers	Prerequisites: None.	Student may receive credit for only one of the following: ENH230 or ENH231. Course Attribute(s): General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Shakespeare's relevance to the present time .		: Humanities, Arts and Design - [HU]		
ENH232	Introduction to Shakespeare: The Late Plays		Introduces Shakespeare, the playwright and linguist, and the early 17th century. Considers representative comedies, histories, tragedies, and romances from Shakespeare's late period, 1600-1611. Focuses on the use of language and connects the writer to his historical era. Also considers Shakespeare's relevance to the present time.	Prerequisites: None.	Student may receive credit for only one of the following: ENH230 or ENH232. Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH235	Survey of Gothic Literature		A study of the origins, common elements and characteristics, and historical development of Gothic literature with an exploration of the literary techniques and psychological aspects of the genre	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH241	American Literature Before 1860		Includes literature written prior to 1860 in the United States.	Prerequisites: A grade of C or better in ENG101.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Cultural Diversity - [C] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ENH242	American Literature After 1860		Includes literature written after 1860 in the United States	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH245	J.R.R. Tolkien and C.S. Lewis: Battling Modernism		Focuses on the writings, language, themes, influences and vision of J.R.R. Tolkien and C.S. Lewis in contrast to the ideas and literature of the Modernist movement.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH251	Mythology		Deals with the myths and legends of civilizations with the greatest influence upon the development of the literature and culture of the English speaking people, and compares those myths with myths from other cultures	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH253	Contemporary Global Literature and Film		Characteristics of literary and cinematic mediums. Challenges of adapting literature to film. Global examination of historical, religious, socio-economic, political, and colonial/post colonial themes depicted in Western and non-Western literature and film (e. g., Africa, Asia, and Latin America) outside the United States. Use of narrative in each medium and how it translates various global/international perspectives and cultural assumptions. Specific	Prerequisites: A grade of C or better in ENG101.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			genres present in literature and film. Cultural metaphors and symbols used in literature and film		and Critical Inquiry - [L]		
ENH254	Literature and Film		Presents works of literature and their film versions and analyzes distinguishing techniques of each medium	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
ENH255	Contemporary U.S. Literature and Film		Strengths and weaknesses of literature and film. Challenges of adapting literature to film. Addressing racial, ethnic, gender, class and religious differences between cultures and mediums. Use of narrative in each medium and how it translates various cultural values and assumptions. Specific genres present in literature and film. Cultural metaphors and symbols used in literature and film	Prerequisites: A grade of C or better in ENG101.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
ENH256	Shakespeare on Film		Presents cinematic versions of Shakespeare's plays and explains and analyzes how the dramatist's major tragedies, comedies, histories and romances have been presented on film	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH259	American Indian Literature		Contemporary American Indian forms of literary expression. Selected oral traditions of	Prerequisites: None.	Course Attribute(s): General Education	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			American Indians. Trends and movements within American Indian literary history		Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]		
ENH260	Literature of the Southwest		Investigates major themes in Southwestern American literature including the Western myth, minority roles in the region's literature, control of nature versus primacy of nature, and growth. Both prose and poetry are examined with an emphasis on contemporary Southwestern writing	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH261	Indigenous Women's Literature of the Americas	AIS/WST2 61	Explores contemporary voices of Indigenous women authors and artists in the Americas as expressed in poetry, fiction, nonfiction, drama, and oral traditions. Focuses on themes relevant to Indigenous women and examines the trends and movements within Indigenous peoples and women's literary history. Examines themes relevant to Indigenous women such as racial and gender oppression, reservation life, acculturation, and their sociopolitical activism in the Americas.	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0
ENH275	Modern Fiction		Includes novels and short stories of modern writers which reflect significant themes of our time	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Design - [HU]		
ENH277	Narrative Genres		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.		Acad	LEC 3.0 3.0 3.0
ENH277AA	Dark Futures: Dystopian Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.		Acad	LEC 3.0 3.0 3.0
ENH277AB	Whodunnits: Mystery Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.		Acad	LEC 3.0 3.0 3.0
ENH277AC	Happily Ever: Children's Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media	Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			(e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	ENG200 suggested but not required.			
ENH277AD	Stuff Blows Up: Action Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required.		Acad	LEC 3.0 3.0 3.0
ENH277AE	Tour of Duty: War Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
ENH277AF	Heroic Quests: Fantasy Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer	Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	but not required.			
ENH277AG	Out There: Science Fiction Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Historical Awareness - [H] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
ENH277AH	Facing Fear: Horror Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required.		Acad	LEC 3.0 3.0 3.0
ENH277AI	Make 'Em Laugh: Comedy Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence	Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			narrative production and reception. Focus on analysis of key texts and their contexts.				
ENH277AJ	Love and Passion: Romance Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required.		Acad	LEC 3.0 3.0 3.0
ENH277AK	The Wild Frontier: Western Narrative		Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts.	Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required.		Acad	LEC 3.0 3.0 3.0
ENH280	Topics in American Literature		Exploration of selected topic(s) in American Literature. Focuses on a theme, genre, era, technique, or critical approach. Includes reading and interpretation of literature from a variety of cultures within the United States.	Prerequisites: A grade of C or better in (ENG101 or ENG107) or permission of Instructor.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU] ENH280 may be repeated for a total of nine (9)	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					credit hours.		
ENH284	19th Century Women Writers	WST284	Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH285	Contemporary Women Writers	WST285	Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH291	Children's Literature	EDU291	Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH292	Literature for Adolescents		Reviews selected literature written for adolescents. Develops and applies literary criteria for the evaluation of adolescent literature	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ENH294	Multicultural Folktales	EDU294 STO294	Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Education Designation : Humanities, Arts and Design - [HU]		
ENH295	Banned Books and Censorship		History, motivations, and effects of censorship in a democratic society. Censorship and book banning as a method of silencing diverse voices. Critical analysis of banned or challenged literature for children and adults.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
ENH296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ENH296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Acad	LAB 2.0 10.0 0.0
ENH296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites:		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ENH296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0
ENH298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
ENH298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
ENH298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
ENV101	Introduction to Environmental Science		Introduces the interconnected nature of environmental science	Prerequisites: None.	Course Attribute(s): General	Acad	LEC 4.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and solutions to environmental issues.		Education Designation : Natural Sciences (Quantitative) - [SQ]		LAB 0.0 3.0 3.0
ENV119	Introduction to Geospatial Technology for Environmental Science		Introduction to geospatial technology concepts and applications including map reading, aerial photography interpretation, and remote sensing. Hands-on experience investigating the local environment with an air photo browser, remote imaging viewer, and a geographic information system.	Prerequisites: None.		Acad	L+L 4.0 4.0 4.0
ENV219	Geospatial Technology for Environmental Sciences I		Hands-on experience using Geographic Information Systems (GIS), Remote Sensing (RS), and Global Positioning Systems (GPS) with applications using local environmental data.	Prerequisites: A grade of C or better in ENV119 or Corequisites: ENV119, or permission of Instructor.		Acad	L+L 4.0 4.0 4.0
ENV225	Our Changing Planet		Explores biogeochemical cycles and energy flows supporting life on Earth. Integrates core concepts of atmospheric science, geology, hydrology, ecology, and soil science to provide a foundational understanding of the critical zone and its relationship to environmental issues. Emphasizes the complex interactions among different systems and processes.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ENV273	Geospatial Technology for Environmental Sciences II		Advanced geospatial techniques including Geographic Information System (GIS) data integration, surface creation and analysis, 3D displays, and animation using local environmental data	Prerequisites: A grade of C or better in ENV219 or permission of Instructor.		Acad	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ENV295	Geospatial Technology for Environmental Sciences Projects		Completion of a self-paced geospatial technology project.	Prerequisites: A grade of C or better in ENV273 or permission of Instructor.	ENV295 must be completed before a student takes the Spatial Technology And Remote Sensing (STARS) exam for certification in geospatial technology.	Acad	L+L 4.0 4.0 4.0
EPD205	Science, Technology, Engineering, and Mathematics (STEM) Education		A basic introduction to Science, Technology, Engineering, and Mathematics (STEM) education in the United States. Emphasis on the understanding of state and national educational acad standards, the importance of the role of higher education in closing the achievement gap and effective strategies for improving teaching in the STEM disciplines. Includes examples of successful school programs along with practical applications for teachers in the classroom and the involvement of community colleges in the STEM Education landscape.	Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education certificate, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
EPD212AA	Elementary Art Methods and Curriculum Development		Overview and practical application of teaching elementary art. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Must hold a Career and Technical Education (CTE) provisional or standard elementary, secondary, or special education teaching certificate, or	EPD212AA requires an approved field experience.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Department or Division.			
EPD212AB	Secondary Art Methods and Curriculum Development		Overview and practical application of teaching secondary art. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Must hold a Career and Technical Education (CTE) provisional or standard elementary, secondary, or special education teaching certificate, or permission of Department or Division.	EPD212AB requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EPD216AA	Elementary Physical Education Methods and Curriculum Development		Overview and practical application of teaching elementary physical education. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards	Prerequisites: Must hold a Career and Technical Education (CTE) provisional or standard elementary, secondary, or special education teaching certificate, or permission of Department or Division.	EPD216AA requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EPD216AB	Secondary Physical Education Methods and Curriculum Development		Overview and practical application of teaching secondary physical education. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards.	Prerequisites: Must hold a Career and Technical Education (CTE) provisional or standard elementary, secondary, or special education teaching certificate, or permission of Department or Division.	EPD216AB requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EPD225	Foundations of Gifted Education and		Students explore definitions of giftedness,	Prerequisites: Must hold a		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Identification of Gifted Learners		ways of identifying gifted and talented students, and types of programs and services developed for this population. Students address issues in educating gifted and talented students.	provisional or standard early childhood, elementary, secondary or special education teaching certificate.			
EPD226	Social and Emotional Needs of Gifted and Talented Students		Students explore the intellectual, social, emotional, developmental, and educational characteristics of gifted and talented students.	Prerequisites: Must hold a provisional or standard early childhood, elementary, secondary or special education teaching certificate and a grade of C or better in EPD225 or (permission of Department or Division chairperson).		Acad	LEC 3.0 3.0 3.0
EPD227	Methods and Models for Differentiating Curriculum for Gifted Learners		Students explore the theory and practice of teaching methods and differentiating curriculum and instruction for gifted learners.	Prerequisites: Must hold a provisional or standard early childhood, elementary, secondary or special education teaching certificate and a grade of C or better in EPD225 (or permission of Department or Division chairperson).		Acad	LEC 3.0 3.0 3.0
EPD228	Creativity and Critical Thinking Skills in Gifted Education		Students explore the concept of creativity, including theories and characteristics. Brain research on critical thinking and implications	Prerequisites: Must hold a provisional or standard early childhood,		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			for gifted education is examined.	elementary, secondary or special education teaching certificate and a grade of C or better in EPD225 (or permission of Department or Division chairperson).			
EPD250	Teaching Elementary Number Sense and Operations Grades K-8		Focus on knowledge and skills for number sense and operations grades K-8. Covers learning environments, teaching resources, and use of technology in the presentation of numeration, number theory and computation. Emphasis on State Academic Math and Common Core Standards. Includes practical application of teaching strategies for elementary students as well as teachers of mathematics.	Prerequisites: Must hold a Career and Technical Education (CTE) provisional or standard elementary, secondary, or special education teaching certificate, or permission of Department or Division.	EPD250 requires an approved field experience.	Acad	LEC 6.0 6.0 6.0
EPD251	Teaching Geometry and Measurement Grades K-8		Focus on knowledge and skills for geometry and measurement concepts for grades K-8. Covers geometric properties, transformation of shapes, coordinate geometry and measurement. Emphasis on State Academic Math and Common Core Standards. Includes practical application of teaching strategies for elementary students as well as teachers of mathematics.	Prerequisites: A grade of C or better in EPD250.	EPD251 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EPD252	Teaching Patterns, Algebra and Functions Grades K-8		Focus on knowledge and skills for patterns, algebra and functions grades K-8. Covers learning environments, teaching resources, and	Prerequisites: A grade of C or better in EPD250.	EPD252 requires an approved field experience.	Acad	LEC 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			use of technology in the presentation of algebraic notation, properties, relations and functions, equations and inequalities. Emphasis on State Academic Math and Common Core Standards. Includes practical application of teaching strategies for elementary students as well as teachers of mathematics.				
EPD253	Teaching Data Analysis, Probability and Discrete Mathematics Grades K-8		Focus on knowledge and skills for data analysis, probability and discrete mathematics concepts for grades K-8. Covers statistics, sampling, systemic listing and counting, and vertex edge graphs. Emphasis on State Academic Math and Common Core Standards. Includes practical application of teaching strategies for elementary students as well as teachers of mathematics.	Prerequisites: A grade of C or better in EPD250.	EPD253 requires an approved field experience.	Acad	LEC 3.0 3.0 3.0
EPD254	Mathematics Classroom Assessment		A thorough examination of techniques and strategies for assessment in the mathematics classroom. Focus on formative and summative assessments.	Prerequisites: A grade of C or better in EPD250, EPD251, EPD252, and EPD253.		Acad	LEC 3.0 3.0 3.0
EPD255	Research-Based Practices, Pedagogy, and Instructional Leadership in Mathematics		Designed to provide strategies that may be used when assuming leadership roles in mathematics. Focus on examining research-based practices, pedagogy, and techniques of instructional leadership in mathematics. Examination of academic math standards and common core standards.	Prerequisites: A grade of C or better in EPD250, EPD251, EPD252, EPD253, and EPD254.		Acad	LEC 3.0 3.0 3.0
EPD256	Science, Technology, Engineering, and		Overview of the current status of Science,	Prerequisites: A grade of C		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Mathematics (STEM) Education and Technology		Technology, Engineering, and Mathematics (STEM) education and technology in the United States and The Standards for Technological Literacy developed by the International Technology Education Association (ITEA). Emphasis on the impact of technology and its interdependence with the other STEM fields in engineering, science, and mathematics. Topics include: technology systems, processes and concepts, energy and power, communication, biotechnology, manufacturing, construction, and transportation technologies. Strategies for practical application in the classroom along with lesson plan development also covered.	or better in EPD205.			
EPD257	Science, Technology, Engineering, and Mathematics (STEM) Education and Science		Overview of the current status of Science, Technology, Engineering, and Mathematics (STEM) education and science in the United States and the National Science Education standards. Emphasis on techniques associated with the scientific inquiry-based approach to teaching and learning science, models-based science teaching, and STEM science student research. Topics include the scientific 'process' skills, project-based learning, the 5E instructional model, and the interdisciplinary connection of science to other STEM fields. Strategies for practical	Prerequisites: A grade of C or better in EPD205.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			application in the classroom along with lesson plan development also covered.				
EPD258	Science, Technology, Engineering, and Mathematics (STEM) Education and Engineering		Overview of the current status of Science, Technology, Engineering, and Mathematics (STEM) education and engineering in the United States. Emphasis on the underlying principles of engineering education and project-based learning. Topics include a brief history of engineering and its disciplines, technical communication skills, problem solving and teamwork, ethics, and engineering systems with modeling and design elements. Strategies for practical application in the classroom along with lesson plan development also covered.	Prerequisites: A grade of C or better in EPD205.	EPD258 requires three (3) hours of field experience.	Acad	LEC 3.0 3.0 3.0
EPD259	Science, Technology, Engineering, and Mathematics (STEM) Education and Mathematics		Overview of the current status of Science, Technology, Engineering, and Mathematics (STEM) education and mathematics in the United States and the Mathematics Common Core Standards. Emphasis on techniques associated with the inquiry-based approach to teaching and learning mathematics, project-based learning, and the interdisciplinary connection of mathematics to other STEM fields. Strategies for practical application in the classroom along with lesson plan development also covered.	Prerequisites: A grade of C or better in EPD205.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EPD270	Theoretical and Research Foundations of Language and Literacy		Focus on scientifically-based research as the foundation for classroom reading instruction. Emphasis on the five major areas of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Application of techniques for organizing and implementing explicit, systematic instruction in each of these areas, and methods of regularly assessing children's performance in reading and language arts.	Prerequisites: Must hold a provisional or standard elementary, secondary, or special education teaching certificate.		Acad	L+L 3.0 3.0 3.0
EPD271AA	Essential Elements of Elementary Reading and Writing Instruction K-8		Overview of the interrelated critical components of reading and writing instruction. Focus on developmental stages, benchmarks, and research-based instructional strategies to effectively teach literacy in the elementary grades.	Prerequisites: Must hold a provisional or standard elementary, secondary, or special education teaching certificate.		Acad	L+L 3.0 3.0 3.0
EPD271AB	Essential Elements of Adolescent Reading and Writing Instruction 6-12		Focus on the theories, methods, and models of the essential elements needed to develop and improve reading and writing skills of adolescents.	Prerequisites: Must hold a provisional or standard elementary, secondary or special education teaching certificate.		Acad	L+L 3.0 3.0 3.0
EPD272AA	Elements of Elementary Content Area Reading and Writing K-8		Focus on practical and effective methods and strategies for the teaching of reading and writing in the elementary content area based on research-based principles and theories.	Prerequisites: A grade of C or better in EPD270, EPD271AA and must hold a provisional or standard elementary, secondary, or special education teaching certificate.		Acad	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EPD272AB	Elements of Adolescent Content Area Reading and Writing 6-12		Focus on practical and effective methods and strategies for the teaching of reading and writing in the adolescent content area based on research-based principles and theories.	Prerequisites: A grade of C or better in EPD270, EPD271AB and must hold a provisional or standard elementary, secondary or special education teaching certificate.		Acad	L+L 3.0 3.0 3.0
EPD274	Reading Assessment		Focus on Assessment Practices and Systems including administering assessments, data collection and analysis, diagnosing reading difficulties, developing student growth plans, and utilizing data to provide appropriate effective instruction to increase literacy success for all students.	Prerequisites: A grade of C or better in EPD270 and (EPD271AA or EPD271AB) and (EPD272AA or EPD272AB) and must hold a provisional or standard elementary, secondary, or special education teaching certificate.		Acad	L+L 6.0 6.0 6.0
EPD276	The Teacher Leader		Focus on K-12 teachers' skills as recognized teacher leaders. Includes reading, summarizing, and analyzing current educational research and theory about the teacher leader. Examination of the effect of informal and formal roles of the teacher leader in the schools. Also covers discovery of personal philosophies of leadership and plans for enacting leadership within participant's own school sites.	Prerequisites: Must hold a provisional or standard elementary, secondary, or special education teaching certificate.		Acad	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EPD277AA	Reading Field Experience K-8		Focus on the practical application of current philosophical theories, methods, and models of assessment and instruction for remediation of reading.	Prerequisites: A grade of C or better in EPD270, EPD271AA, EPD272AA, EPD274, EPD276 and must hold a provisional or standard elementary, secondary, or special education teaching certificate.		Acad	L+L 3.0 3.0 3.0
EPD277AB	Reading Field Experience 6-12		Focus on the practical application of current philosophical theories, methods, and models of assessment and instruction for remediation of reading.	Prerequisites: A grade of C or better in EPD270, EPD271AB, EPD272AB, EPD274, EPD276 and must hold a provisional or standard elementary, secondary, or special education teaching certificate.		Acad	L+L 3.0 3.0 3.0
EPD279	Reading Practicum K-12		Focus on the practical application of current philosophical theories, methods, and models of assessment and instruction for remediation of reading.	Prerequisites: A grade of C or better in EDU270AB and must hold a provisional or standard elementary, secondary or special education teaching certificate.		Acad	L+L 3.0 4.5 4.5
EPD287	Science, Technology, Engineering, and Mathematics Education (STEM) Education Capstone Project		Organized and tailored around completed coursework in Science, Technology, Engineering, and Mathematics (STEM) education. Structured to provide a capstone	Prerequisites: A grade of C or better in EPD256, EPD257, EPD258, and EPD259.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			experience by providing opportunities for individualized research and study guided by professional expertise. Allows for best opportunities of independent study and individualized learning to maximize teacher development and knowledge in the STEM fields. Final project required. Includes a development plan for immediate classroom use with appropriate grade level lesson plans and activities, teaching strategies, and techniques in a STEM field.				
EPS150	Introduction to Entrepreneurship		Overview of entrepreneurship. Includes the entrepreneurial process and the skills required to be successful, including starting, planning, financing, marketing, and managing a business.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
EPS151	Project-Based Entrepreneurship: Community Solutions		Practical experience in applying core entrepreneurial skills and knowledge in a real-world context including innovation and creativity exercises. Application of knowledge and skills from earlier coursework to develop and present solutions to real-world situations currently faced by Entrepreneurs, Community-Based Organizations, Civic or Government Organizations, or College Departments.	Prerequisites: A grade of C or better in EPS150 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
EPS160	New Venture Creation		Process of starting a new venture including evaluating specific business opportunities identifying financing	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			alternatives, and defining start-up issues.				
EPS161	New Venture Law and Finance		Introduction to the principles of legalization and capitalization of a new business venture. Includes the processes required to organize, register, finance, launch and protect a business.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
EPS162	Introduction to Social Entrepreneurship		Introduction to the history, theory, and emerging activities of social entrepreneurship. Includes management skills for social entrepreneurial organizations, scaling of social impact, and social performance measurement. Emphasis on social capital, microfinance, and evaluation of social entrepreneurial opportunities.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
EPS165	New Venture Feasibility Analysis		Introduction to the industry's market and competitive structure. Includes the technical skills to develop a competitive strategy for entry into the business segment. Covers the market potential evaluation, niche identification, analysis of competition, and development of customer profiles. Also involves development of a marketing strategy and sales projections for new business ventures.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
EPS180	Technology Business Planning		Fundamentals of identifying new technologies and innovations for profitable commercial feasibility. Determination of capabilities, resources, and interests of the entrepreneur. Evaluation and selection of technology opportunities. Creation of business	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			concept and plan. Customer development and business models. Finances, venture capital and accounting. Marketing and sales. Legal formation and intellectual property. Operations and resource management. Growth, harvest and success.				
EPS195	Business Start-Up and Planning		Development of a feasibility approach to strategic decision making concerning new venture start-up. Includes development of a business feasibility study and a preliminary business plan.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
EQS105	Principles of Equine Science		Breeds, colors and markings; horse selection; basic conformation; form to function; structures of the hoof; footfall sequences; vision, managed health program; nutrition principles and management practices.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
EQS120	Equine Anatomy and Physiology		Study of structure and function of the equine. Includes cell structure, anatomy and physiology of major systems with emphasis on skeletal, muscular, and digestive systems. Incorporates detailed discussion and identification of various anatomical parts.	Prerequisites: A grade of C or better in EQS105 or permission of Department or Division.		Occ	L+L 4.0 5.0 5.0
EQS130	Equine Business and Law		Practices and records used in the equine business. Includes record keeping systems and basic accounting principles; taxes; personnel management practices; computer programs for record keeping and operations management. Addresses legal aspects and laws unique to equine businesses.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EQS140	Equine Behavior		Equine behavior modification using the horse's natural behavior patterns. Emphasis on intelligence level, vision, emotions, hearing, and attention span of the horse.	Prerequisites: A grade of C or better in EQS105 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
EQS145	Basic Horsemanship		Rudimentary knowledge concerning horse handling safety, basic riding equipment, grooming techniques, saddling, bridling, mounting, dismounting, and basic control of the horse at the walk and trot. English or western equipment used. Emphasis on position of rider as it relates to basic control of the horse	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
EQS160	English Horsemanship I		Basic ground work and safety procedures; control of the horse at the walk, trot, and canter; rider position and use of fundamental aids	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
EQS162	Equine and Stable Management I		Focus on daily stable operations in the care and management of horses. Practical experience in basic horse husbandry, horsemanship, and stable management. Development of ground handling skills and use of lunge line and round penning techniques. Topics include feeding, watering, stable sanitation, grooming, bathing, vaccines, parasite control, safety, horse behavior, health, wounds and their treatments, and record keeping.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
EQS162VT	Equine Management for the Veterinary Technician		A hands-on introduction to daily stable operations in the care and management of horses. Practical experience with various assigned horses in basic horse	Prerequisites: Veterinary Technician student currently enrolled in Mesa		Occ	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			husbandry, horsemanship, and stable management. Development of ground handling skills during various activities related to the care of horses. Effective use of lunge line and round penning techniques. Topics include feeding, watering, stable sanitation, grooming, bathing, lameness exams, vaccines, blood draws, parasite control, safety, horse behavior, health, wounds and their treatments, veterinary forms and recordkeeping.	Community College (MCC) Veterinary Technology Program or student currently enrolled in Scottsdale Community College (SCC) Equine Science Program on track with Mesa Community College (MCC) Veterinary Technology Program upon graduation from SCC.			
EQS165	Western Horsemanship I		Basic ground work and safety procedures; control of the horse at the walk, jog, and lope; rider position and use of fundamental aids	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
EQS175	Introduction to Equine Therapies		Designed to acquaint students with equine therapies for major muscle groups, the skeletal system and the hoof of the horse. The relationship that exists between the listed systems, equine locomotion and lameness problems will be discussed. Discussion, demonstration, and/or practical hands-on opportunities of equine therapy techniques will be focus of the class.	Prerequisites: None.	EQS175 is not designed to train or certify individuals to massage horses on a professional basis.	Occ	L+L 3.0 6.0 6.0
EQS180	English Horsemanship II		Increase control, balance, form and finesse in the balanced seat style of English riding. Emphasis on	Prerequisites: A grade of C or better in EQS160 or permission of		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			developing the rider's ability to apply precise, prompt, smooth aids, and attain harmony with the horse through use of "body language."	Department or Division.			
EQS185	Western Horsemanship II		Refinement of basic riding skills; weight, leg, and rein aids; gathering and checking; two-track; trail obstacles; simple change of lead; elements of a Western riding pattern.	Prerequisites: A grade of C or better in EQS165 or permission of Department or Division.		Occ	L+L 3.0 3.0 3.0
EQS200	Principles of Equine Nutrition		Basic principles of equine nutrition and digestion. Proper selection, evaluation and utilization of feeds as well as the feeding and care of the equine in various stages of production, growth and performance. Emphasis on nutrient content and ration evaluation, general health and feed management. Identifies specific nutritional needs of each class of equine and formulates feeding programs based on these specific needs.	Prerequisites: A grade of C or better in (EQS105 and EQS120) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
EQS205	Equine Genetics, Selection, Development		Introduction to genetics as applied to selection of breeding animals. Emphasis on phenotypic selection and foal development	Prerequisites: A grade of C or better in EQS120 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
EQS215	Feeding Programs for Production and Performance		Explores the feeding and care of the equine in various stages of production, growth and performance. Identifies specific nutritional needs of each class of equine and formulates feeding programs based on these specific needs	Prerequisites: A grade of C or better in EQS200 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
EQS220	Equine Reproduction		Reproductive anatomy and physiology; care and management of the breeding stallion; breeding procedures and artificial insemination.	Prerequisites: A grade of C or better in EQS105 or EQS120 or permission of		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Care of pregnant mare; foaling procedures	Department or Division.			
EQS225	Equine Health and Disease Management		Aspects of equine health and disease prevention. Emphasis on preventive maintenance. Preventive medicine and necessary managerial practices needed to keep the equine athlete, broodmare, or family horse in good health	Prerequisites: A grade of C or better in (EQS105 and EQS120) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
EQS235	English Horsemanship and Training		Riding skills and training techniques for the English horse. Includes review of basic horsemanship skills, lateral bend and vertical flexion, halt, rein back, leg yield, counter canter, simple and flying change of leads, mental preparation for shows and the judging criteria for various performances	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
EQS245	Western Horsemanship and Training		Riding skills and training techniques for the western horse. Includes review of basic horsemanship skills, stopping, backing, two track, simple and flying lead changes, turns on the forehand and hindquarters, rating speed collection, western riding patterns and horse show preparation	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
EQS250	Equine Evaluation		Fundamental relationship between good conformation and ability of the horse to remain sound and useful. Includes basic skeletal structure, common blemishes and evidence of unsoundness. Breed conformation standards and performance events for the more common breeds.	Prerequisites: A grade of C or better in (EQS105 and EQS120) or permission of Department or Division.		Occ	L+L 3.0 4.0 4.0
EQS264	Equine and Stable Management II		Advanced practical experience in horse and stable management.	Prerequisites: A grade of C or better in		Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Practical and supervisory experience in daily stable operations that increase skill and knowledge level in the care and management of horses. Topics include nutrition, diseases and their prevention, environmental issues parasite, pests and rodent control, safety, horse handling, wounds and their treatments, injury and treatments, inventory control, record keeping, and industry-standard operating procedures.	(EQS162 or EQS162VT) or permission of Department or Division.			
EQS270	Teaching Techniques in Horsemanship		Theory and principles in teaching horsemanship and developing a public lesson program. Emphasis on developing a lesson plan, communication and public relations skills; horse and rider problem analysis; and methods of group control	Prerequisites: A grade of C or better in EQS105 and EQS145 and (EQS160 or EQS165) or permission of Department or Division.		Occ	L+L 3.0 4.0 4.0
EQS275	Equine Lameness		A continuing study of equine skeletal anatomy with emphasis on the normal function of front and hind legs and the hoof. Covers methods of evaluating various deviations that present as lameness in horses; how conformation, gait, and lameness relate to performance, physical and behavior issues; the protocol of equine gait assessments on actual horses; and how to diagram the footfalls of the horse. Topics include the body's response to injury, forms of therapy, types of conditioning, and rehabilitative techniques for returning horses to usefulness and performance.	Prerequisites: A grade of C or better in (EQS105, EQS120, and EQS250) or permission of Department or Division.		Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EQS280	Equine Science Internship		Equine industry work experience at faculty approved site. Focus of internship is immersion in an area of interest in or related to equine industry.	Prerequisites: A grade of C or better in (EQS120 and (EQS162 or EQS162VT)), or permission of Department or Division.	EQS280 requires a minimum of 250 contact hours. Students can choose to participate in EQS285 Equine Science Practicum or EQS280.	Occ	LAB 3.0 15.0 0.0
EQS283	Special Event Internship		Hands-on career track experience before, during and after a major equine event. Emphasis on event coordination and management issues.	Prerequisites: A grade of C or better in EQS105 or permission of Department or Division.	EQS283 requires a minimum of 30 contact hours. EQS283 may be repeated for a total of four (4) credit hours with permission of Department or Division.	Occ	LAB 1.0 2.0 0.0
EQS284	Teaching Techniques Internship		Short term in-depth participation assisting with the organization and methods of instruction for an Equine Science horsemanship class.	Prerequisites: A grade of C or better in EQS270 plus an assessment of horsemanship skills.	EQS284 may be repeated for a total of four (4) credits with department permission.	Occ	LAB 1.0 5.0 0.0
EQS285	Equine Science Practicum		Equine industry work experience at faculty approved site.	Prerequisites: EQS120 and (EQS162 or EQS162VT).	EQS285 requires a minimum of 160 contact hours and may be repeated for a total of four (4) credit hours. EQS280 may be taken as an option.	Occ	LAB 2.0 10.0 0.0
EQS294	Special Topics in Equine Science		Exploration of special topics related to Equine	Prerequisites: None.	EQS294 may be	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Science and Equine Management with an emphasis on current issues.		repeated for credit.		
EQS294AA	Special Topics in Equine Science		Exploration of special topics related to Equine Science and Equine Management with an emphasis on current issues.	Prerequisites: None.	EQS294AA may be repeated for credit.	Occ	LEC 2.0 2.0 2.0
EQS294AB	Special Topics in Equine Science		Exploration of special topics related to Equine Science and Equine Management with an emphasis on current issues.	Prerequisites: None.	EQS294AB may be repeated for credit.	Occ	LEC 1.0 1.0 1.0
EQS294AC	Special Topics in Equine Science		Exploration of special topics related to Equine Science and Equine Management with an emphasis on current issues.	Prerequisites: None.	EQS294AC may be repeated for credit.	Occ	LEC 0.5 0.5 0.5
EQS295	Equine Therapies II		Designed to train students with advanced equine therapy methods to relieve common conditions and pathologies for the musculoskeletal system. Identifying biomechanics, variations and abnormalities, muscle tension, joint stress, common injuries and lameness. Identifying and assessing the relationship between conformational flaws, range of motion and lameness as they align with the performance of specific disciplines. Discussion and demonstration with practical hands-on training of advanced equine therapy methods. Designed to train students to work in the field as an Equine Massage Practitioner with the ability to evaluate common conditions, and carry out a treatment plan, that will	Prerequisites: A grade of B or better in EQS175 or permission of Department or Division. Students must pass an entrance test before permission to enroll will be given.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			relieve muscle tension and pain, increasing circulation, flexibility and range of motion in the horse.				
EQS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
EQS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				(students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
EQS296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
EQS296W D	Cooperative Education		Work-college experiences that involve	Prerequisites: Completion		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
EQS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
EQS298AB	Special Projects		Organized and tailored around the interests and	Prerequisites: Permission of		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Program Director or Instructor.			
EQS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
ESL002	Basic English as a Second Language II		Listening, speaking, reading, and writing in English at a high beginning level. Focus on survival skills related to life in the United States. Continuing development of grammatical patterns.	Prerequisites: A grade of C or better in ESL001 or permission of Instructor.	ESL002 may be repeated for a total of twelve (12) credit hours.	Acad	LEC 6.0 6.0 6.0
ESL010	English as a Second Language I: Grammar		First level of English as a Second Language (ESL). Emphasis on basic conversational skills, pronunciation, vocabulary building and grammar. Some reading	Prerequisites: Appropriate ESL placement test score.	ESL010 may be repeated for a total of six (6) credit hours. Credit (P) or no	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and sentence level writing.		credit (Z). Standard grading available according to procedures outlined in catalog.		
ESL011	English as a Second Language I: Listening and Speaking		Emphasis on listening and speaking skills involving survival skills. Asking and answering questions related to work, shopping, and personal safety.	Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL002.	ESL011 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ESL012	ESL I-Writing with Oral Practice		Emphasis on basic conventions of writing in English. Includes introduction to the alphabet, capitalization, punctuation, and simple sentence structure.	Prerequisites: Appropriate ESL placement test score or permission of Instructor.	ESL012 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ESL013	Vocabulary for ESL I		Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to people, medical/dental care, occupations and other activities.	Prerequisites: Appropriate ESL placement test score or permission of Instructor.	ESL013 may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0
ESL016	Reading English as a Second Language I		Designed for students who are learning English as a second language. Skills needed to become proficient readers in English. Sound symbol relationships of the English alphabet. Essential vocabulary for daily communication both in isolation and context. Development of reading comprehension skills.	Prerequisites: Appropriate ESL placement test score.		Acad	LEC 3.0 3.0 3.0
ESL020	English as a Second Language II: Grammar		Second level of English as a Second Language (ESL). Continued emphasis on conversational skills, pronunciation, vocabulary building and grammar with some	Prerequisites: Appropriate ESL placement test score or a grade of P or C or better in ESL010.	ESL020 may be repeated for a total of six (6) credit hours. Credit (P) or no credit (Z).	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			reading and sentence level writing.		Standard grading available according to procedures outlined in catalog.		
ESL021	English as a Second Language II: Listening and Speaking		Emphasis on listening and speaking skills involving social exchange. Asking and answering questions, using tag questions. Practice with question and answer patterns. Polite questions and responses.	Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL010 or ESL011 or ESL012 or RDG010.	ESL021 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ESL022	ESL II-Writing with Oral Practice		Emphasis on basic writing skills, accompanied by recitation of short writings. Sentence patterns and introduction of paragraph writing.	Prerequisites: Appropriate ESL course placement score or a grade of C or better in ESL012 or permission of Instructor.	ESL022 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ESL023	Vocabulary for ESL II		Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to people, medical/dental care, occupations and other activities.	Prerequisites: Appropriate ESL placement test score or permission of Instructor.	ESL023 may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0
ESL026	Reading English as a Second Language II		Designed for students who are learning English as a second language. Continued development of vocabulary and reading comprehension skills.	Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL016 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
ESL030	English as a Second Language III: Grammar		Third level of English as a Second Language (ESL). Emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice.	Prerequisites: Appropriate ESL placement test score or a grade of P or C or better in ESL020.	ESL030 may be repeated for a total of six (6) credit hours. Credit (P) or no credit	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					(Z). Standard grading available according to procedures outlined in catalog.		
ESL031	English as a Second Language III: Listening and Speaking		Emphasis on listening and speaking skills related primarily to the academic environment. Asking questions, working in small groups, using college resources, informal oral presentation.	Prerequisites: Appropriate ESL placement test score, or a grade of C or better in ESL020, or ESL021, or ESL022, or ESL/RDG026	ESL031 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ESL032	ESL III-Writing with Oral Practice		Emphasis on complex sentence patterns in writing and speech. Introduction to the prewriting and writing process in a college setting.	Prerequisites: Appropriate ESL course placement score or a grade of C or better in ESL022 or permission of Instructor.	ESL032 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ESL033	Vocabulary for ESL III		Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to people, medical/dental care, occupations and other activities.	Prerequisites: Appropriate ESL placement test score or permission of Instructor.	ESL033 may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0
ESL036	Reading English as a Second Language III		Designed for students who are learning English as a second language. Instruction for more advanced vocabulary and reading comprehension skills.	Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL026 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
ESL040	English as a Second Language IV: Grammar		Fourth-level of English as a Second Language (ESL). Continued emphasis on sentence structure and paragraph building. Extensive	Prerequisites: Appropriate ESL placement test score or a grade of P	ESL040 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			grammar study and writing practice.	or C or better in ESL030.	Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog.		
ESL041	English as a Second Language IV: Listening and Speaking		Emphasis on academic skills. Listening to lectures, notetaking, peer interaction, accessing and using media resources, formal oral presentations.	Prerequisites: Appropriate ESL placement test score, or a grade of C or better in ESL030, or ESL031, or ESL032, or ESL/RDG036	ESL041 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ESL042	ESL IV-Writing with Oral Practice		Emphasis on paragraph writing and oral recitation of complex sentences and paragraphs. Introduction to the prewriting and writing process for short essays.	Prerequisites: Appropriate ESL course placement score or a grade of C or better in ESL032 or permission of Instructor.	ESL042 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ESL046	Reading English as a Second Language IV		Developed for students of English as a second language. Development of advanced vocabulary, comprehension skills, and culture awareness.	Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL036 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
ESL049	General Vocational English as a Second Language		General English speaking, listening, reading, and writing skills needed for use at work.	Prerequisites: Appropriate ESL placement test score, or a grade of "C" or better in ESL010, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
ESL050	Review Grammar For ESL		Review of grammatical concepts for ESL (English as a Second	Prerequisites: Appropriate ESL course	ESL050 may be repeated for	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Language) students who have some previous experience in reading and writing English. Appropriate for students who want to practice sentence skills in English.	placement score or a grade of C or better in ESL040 or permission of Instructor.	a total of six (6) credit hours.		
ESL050AA	Basic Review Grammar for ESL		Review of the use of English verbs and word placement in sentences for ESL (English as a Second Language) students who have some previous experience in reading and writing English. Appropriate for students who want to practice sentence skills in English.	Prerequisites: Appropriate ESL placement test score, or a grade of C or better in ESL010 or permission of Instructor.	ESL050AA may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0
ESL050AB	Intermediate Review Grammar for ESL		Review of auxiliary verbs and the comparative and superlative for ESL (English as a Second Language) students who have some previous experience in reading and writing English. Appropriate for students who want to practice sentence skills in English.	Prerequisites: Appropriate ESL placement test score, or a grade of "C" or better in ESL020, or permission of Instructor.	ESL050AB may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0
ESL050AC	Advanced Review Grammar for ESL		Review of verbals and gerunds for ESL (English as a Second Language) students who have some previous experience in reading and writing English. Appropriate for students who want to practice sentence skills in English.	Prerequisites: Appropriate ESL placement test score, or a grade of "C" or better in ESL030, or permission of Instructor.	ESL050AC may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0
ESL051	Pronunciation Improvement for ESL Speakers		Individualized pronunciation practice and drills for English as a second language (ESL) speakers.	Prerequisites: Appropriate ESL course placement score, or a grade of C or better in (ESL020, or ESL021, or ESL022, or ESL/RDG026), or permission of Instructor.	ESL051 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ESL054	American Culture		Reading and writing about American culture including history, institutions and sports, and entertainment.	Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL040 or ESL/RDG046 or permission of Instructor.	ESL054 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ESL054AA	American Culture: History		Reading and writing about American history.	Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL040 or ESL/RDG046 or permission of Instructor.	ESL054AA may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0
ESL054AB	American Culture: Institutions and Customs		Reading and writing about American cultural institutions and customs.	Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL040 or ESL/RDG046 or permission of Instructor.	ESL054AB may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0
ESL054AC	American Culture: Sports and Entertainment		Reading and writing about American sports and entertainment.	Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL040 or ESL/RDG046 or permission of Instructor.	ESL054AC may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0
ESL061	Informal Conversational and Written English for Non-native Speakers		Practice speaking and writing English in informal settings. Emphasis on friendly conversational techniques and effective use of the computer and the Internet to communicate in a friendly, relaxed manner.	Prerequisites: Appropriate ESL placement test score or a grade of P or C or better in ESL020 or ESL021 or ESL022 or RDG020.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ESL071	Advanced Pronunciation and Oral Reading for ESL		Pronunciation practice and review, spelling of English sounds, and oral reading for stress and intonation patterns in English.	Prerequisites: A grade of C or better in ESL051 or permission of Instructor.	ESL071 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
ESL077	Preparatory Academic Writing I for ESL		Emphasizes preparation for college level composition and related reading tasks with a focus on communicating through complete, grammatically correct writing, organized to communicate a central idea.	Prerequisites: Appropriate writing placement test score or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ESL087	Preparatory Academic Writing II for ESL		Emphasizes preparation for college-level composition and related reading tasks with a focus on critical writing, reading, and thinking skills and processes.	Prerequisites: Appropriate writing placement test score or a grade of C or better in ESL077 or ENG071 or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ESL097	Preparatory Academic Writing III for ESL		Emphasizes preparation for first year composition with a focus on critical writing, reading, and thinking skills and processes at an increased level of academic complexity.	Prerequisites: Appropriate writing placement score, or a grade of C or better in ESL087 or ENG081, or permission of Department or Division.		Acad	LEC 3.0 3.0 3.0
ESL101	English as a Second Language I		Beginning language skills for English language learners to develop reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills.	Prerequisites: Appropriate ESL placement score or permission of Instructor.	ESL101 content aligns with common European Framework of Reference for languages (CEFR) A2 guidelines.	Acad	LEC 6.0 6.0 6.0
ESL101AA	English as a Second Language IA		Beginning language skills for English language learners to develop reading, writing,	Prerequisites: Appropriate ESL placement	ESL101AA content aligns with common	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			listening, and speaking skills. Emphasizes integrated reading and writing skills.	score or permission of Instructor.	European Framework of Reference for languages (CEFR) A2 guidelines.		
ESL101AB	English as a Second Language IB		Beginning language skills for English language learners to develop reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills.	Prerequisites: A grade of C or better in ESL101AA, or appropriate ESL placement score, or permission of Instructor.	ESL101AB content aligns with common European Framework of Reference for languages (CEFR) A2 guidelines.	Acad	LEC 3.0 3.0 3.0
ESL102	English as a Second Language II		Low-intermediate language skills for English language learners to develop reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills.	Prerequisites: A grade of C or better in ESL101, or (ESL101AA and ESL101AB), or appropriate placement score, or permission of Instructor.		Acad	LEC 6.0 6.0 6.0
ESL102AA	English as a Second Language IIA		Language skills for English language learners to develop reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills.	Prerequisites: A grade of C or better in ESL101, or (ESL101AA and ESL101AB), or appropriate placement score, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
ESL102AB	English as a Second Language IIB		Language skills for English language learners to develop reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills.	Prerequisites: A grade of C or better in ESL102AA, or appropriate placement score, or permission of Instructor.	ESL102AB content aligns with common European Framework of Reference for Languages	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					(CEFR) A2 guidelines.		
ESL110	Beginning to Low-Intermediate English Listening and Speaking		Beginning to low-intermediate English language listening and speaking skills on familiar topics. Focus on the development of an appropriate degree of accuracy, fluency, and spontaneity to allow for interactions appropriate to this level.	Prerequisites: Appropriate ESL placement score or permission of Instructor.	ESL110 content aligns with common European Framework of Reference for languages (CEFR) A1 and A2 guidelines.	Acad	LEC 3.0 3.0 3.0
ESL140	Beginning to Low-Intermediate English Grammar		Beginning to low-intermediate grammar for English language learners. Emphasis on use of language in familiar contexts.	Prerequisites: Appropriate ESL placement score or permission of Instructor.	ESL140 content aligns with common European Framework of Reference for languages (CEFR) A1 and A2 guidelines.	Acad	LEC 3.0 3.0 3.0
ESL201	English as a Second Language III		High-intermediate language instruction for English language learners to build proficiency in academic and professional listening, speaking, reading, and writing. Focuses on integrated reading and writing skills.	Prerequisites: A grade of C or better in ESL102, or (ESL102AA and ESL102AB), or appropriate ESL placement score, or permission of Instructor.		Acad	LEC 6.0 6.0 6.0
ESL201AA	English as a Second Language IIIA		High-intermediate language instruction for English language learners to build proficiency in academic and professional listening, speaking, reading, and writing. Focuses on integrated reading and writing skills.	Prerequisites: A grade of C or better in ESL102, or (ESL102AA and ESL102AB), or appropriate ESL placement score, or permission of Instructor.	ESL201AA content aligns with common European Framework of Reference for languages (CEFR) B1 guidelines.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ESL201AB	English as a Second Language IIIB		High-intermediate language instruction for English language learners to build proficiency in academic and professional listening, speaking, reading, and writing. Focuses on integrated reading and writing skills.	Prerequisites: A grade of C or better in ESL201AA, or appropriate ESL placement score, or permission of Instructor.	ESL201AB content aligns with common European Framework of Reference for languages (CEFR) B1 guidelines.	Acad	LEC 3.0 3.0 3.0
ESL202	English as a Second Language IV		Advanced language instruction for English language learners to further develop proficiency in academic and professional listening, speaking, reading, and writing with an introduction to information literacy. Emphasizes integrated reading and writing skills for use in research and presentation.	Prerequisites: A grade of C or better in ESL201, or (ESL201AA and ESL201AB), or appropriate ESL placement score, or permission of Instructor.	ESL202 content aligns with common European Framework of Reference for languages (CEFR) B1 guidelines.	Acad	LEC 6.0 6.0 6.0
ESL202AA	English as a Second Language IVA		Advanced language instruction for English language learners to further develop proficiency in academic and professional listening, speaking, reading, and writing with an introduction to information literacy. Emphasizes integrated reading and writing skills for use in research and presentation.	Prerequisites: A grade of C or better in ESL201, or (ESL201AA and ESL201AB), or appropriate ESL placement score, or permission of Instructor.	ESL202AA content aligns with common European Framework of Reference for languages (CEFR) B1 guidelines.	Acad	LEC 3.0 3.0 3.0
ESL202AB	English as a Second Language IVB		High-intermediate language instruction for English language learners to build proficiency in academic and professional listening, speaking, reading, and writing. Focuses on integrated reading and writing skills.	Prerequisites: A grade of C or better in ESL202AA, or appropriate ESL placement score, or permission of Instructor.	ESL202AB content aligns with common European Framework of Reference for languages (CEFR) B1 guidelines.	Acad	LEC 3.0 3.0 3.0
ESL210	High-Intermediate to Advanced English Listening and Speaking		High-Intermediate to advanced English language listening and speaking skills on	Prerequisites: Appropriate ESL placement	ESL210 content aligns with common	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			academic, professional, and socio-cultural topics. Focus on the development of accuracy, fluency, and spontaneity to allow for constructive interactions.	score or permission of Instructor.	European Framework of Reference for languages (CEFR) B1 and B2 guidelines.		
ESL240	High-Intermediate to Advanced English Grammar		High-intermediate to advanced grammar for English language learners. Emphasis on use of language for different situations.	Prerequisites: Appropriate ESL placement score or permission of Instructor.	ESL240 content aligns with common European Framework of Reference for languages (CEFR) B1 and B2 guidelines.	Acad	LEC 3.0 3.0 3.0
ESL298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
ESL298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and individualized learning to be combined to maximize student development.				
ESL298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
ESP180	College and Career Readiness		This college and career readiness course is designed to prepare students for the rigors and expectations of post-secondary education. Students will learn essential professional skills required for success in the workplace, as well as learn vital academic skills required for success in the classroom. Students will be introduced to educational pathways for career exploration, learn how to write a professional resume, cover letter, conduct mock interviews, and gain a better understanding of post-secondary funding options.	Prerequisites: Admission into the Emergency Medical Technology program. Successful completion of RDG100 or higher or appropriate reading placement into CRE101.		CLK	40
EST102	Aesthetics Essentials		As students begin their training in Aesthetics, they will begin to develop and demonstrate proficiencies in effective client communication,	Prerequisites: Admission to the Aesthetics program, or Program		CLK	200

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			interpersonal skills, and will learn how to deliver an effective skin care facial treatment and client pre and post consultations. Topics will also include sanitation, Arizona laws, client care, and facial care.	Manager's approval.			
EST110	Advanced Aesthetics		Theory and application of advanced skin care modalities, resurfacing, and cosmetic chemistry. Hair removal techniques, makeup application, and an introduction to body treatments are also included. Application of theory and skills through treatment services provided to the public. Focus on communication and documentation to create customized treatment plans and product recommendations for clients that follow all safety and infection control procedures in compliance with the Arizona State Board of Cosmetology (AZBOC).	Prerequisites: EST102 or Program Manager's approval.		CLK	200
EST115	Aesthetics Mastery		Focus on theories and performance of comprehensive professional aesthetics treatments for the public including communication and documentation to create customized treatment plans and product recommendations for clients that follow all safety and infection control procedures in compliance with the Arizona Board of Cosmetology (AZBOC). Overview of business planning and employment in the field including marketing, job search strategies, professional	Prerequisites: EST110 or Program Manager's approval.		CLK	200

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development, and self promotion. Arizona State Board of Cosmetology (AZBOC) examination licensure preparation.				
ETL220	Online Teaching and Learning I		Application of and experience using an online teaching and learning environment from a student's perspective to inform the design and support of an online course environment. Application and evaluation of online learning principles and tools for teaching and learning. Identification and development of online facilitation knowledge and skills. Introduction to the best practices in content building, course design and delivery.	Prerequisites: Permission of Instructor.		Acad	LEC 3.0 3.0 3.0
ETL221	Online Teaching and Learning II		Experience with creating an online or hybrid duplicative course module structure in an online teaching and learning environment using evidence-based practices in course design. Develop learning objectives and module map based on curricular principles. Using instructional design techniques develop and align materials, activities, assignments and assessments to learning objectives. Discuss and develop active learning strategies for presenting content, facilitating discussions, creating assignments and administering assessments in the online environment.	Prerequisites: A grade of C or better in ETL220 or permission or Instructor.		Acad	LEC 3.0 3.0 3.0
EUT103	Introduction to Rigging		Basic fundamentals of overhead rigging. Topics covered include elements of safe rigging, rope, knots and knot	Prerequisites: [A grade of B or better in (MAT055, MAT056, and		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			tying, use of a handline, and use of blocks and tackle. Exploration of variety approaches to basic rigging tasks.	MAT057), or a grade of B or better in MAT09+, or appropriate district placement into MAT122], and a grade of C or better in ENG091, or ESL097, or appropriate district placement into ENG101.			
EUT104	Equipment Safety and Operation		Operation and maintenance of equipment used in the utility industry. Identification and inspection of the major mechanical operations of equipment, as well as performance of pre-trip inspections on utility equipment. Emphasis on safety operations.	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0
EUT105	Introduction to Pole Climbing		Proper climbing techniques for new climbers. Inspection and maintenance of pole climbing equipment, the equipment used in pole climbing, and how to maintain it.	Prerequisites: None.		Occ	LAB 1.0 1.0 1.0
EUT110	Line Work I		Overview of line work industry including its history, technological developments and current practices. Examines industry equipment and tools. Focuses on safety practices and procedures used in utility line work industry	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
EUT112	Basic Electricity: AC and DC		Reviews the basic principles of Alternating Current (AC) and Direct Current (DC) electricity. Examines the structure and function of AC and DC circuits including	Prerequisites: A grade of C or better in or EUT110 and (EUT115 or CAD101) or Corequisites:		Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			series, parallel and series-parallel circuits. Includes an overview of electric systems and their applications in the utility industry.	EUT110 and (EUT115 or CAD101).			
EUT115	Training I		Practice in the basics of climbing and working on utility poles. Focuses on apparatus and equipment, using ropes and rigging equipment, installations of single and double cross arms, pole framing and setting, use of hand line and building single-phase lines.	Prerequisites: A grade of C or better in EUT110 and EUT112 or Corequisites: EUT110 and EUT112.		Occ	L+L 4.0 12.0 12.0
EUT210	Line Work II		Overview of line work industry including its history, technological developments and current practices. Examines industry equipment and tools. Focuses on hot sticking, tag out and lock out procedures with emphasis on industry safety practices and procedures	Prerequisites: A grade of C or better in EUT110.		Occ	LEC 2.0 2.0 2.0
EUT211	Electrical Apparatus		Overview of transformers and how they operate. Reviews single and three-phase theory. Focuses on construction and hook-up of single-phase, three- phase, open Y and Delta transformer connections. Presents an overview of surge arresters, including applications and installation.	Prerequisites: A grade of C or better in EUT110, EUT112 and (EUT115 OR CAD101). Corequisites: EUT215 or CAD164.		Occ	L+L 4.0 4.0 4.0
EUT215	Training II		Practice in the installation of electrical lines including transformers, reclosers, and service loops. Teaches rubber gloving, hot sticking techniques, and trenching of underground lines. Practice in the safe set-up and operation of	Prerequisites: A grade of C or better in EUT110, EUT112, and EUT115. Corequisites: EUT211.		Occ	L+L 4.0 12.0 12.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			equipment used in the line industry with a focus on the development of entry-level skills as drivers and operators. Includes procedures and practice in pole-top and bucket-truck rescues.				
EXS101	Introduction to Exercise Science		Introductory course that will provide the student with a general overview of the key theories and concepts, professions, and research areas associated with the field of Exercise Science. Educational pathways and career options will also be examined.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EXS112	Professional Applications of Fitness Principles		Basic principles of fitness for the prospective fitness professional and characteristics of quality communication and fitness leadership. Topics include behavior modification, enhancing motivation components of fitness, fitness assessment, risk stratification, exercise programming and modifications.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EXS123	Active for Life		Uses a variety of behavior change strategies to help fit physical activity into a busy schedule. Addresses the root causes of physical inactivity and focuses on the skills needed to establish a lifelong habit of physical activity	Prerequisites: None.		Acad	L+L 2.0 4.0 4.0
EXS125	Introduction to Exercise Physiology		Principles of exercise science applied to fitness instruction. Major factors related to the function of the human body will be examined/introduced with an emphasis on exercise physiology and functional anatomy.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EXS130	Strength Fitness-Physiological Principles and Training Techniques		Principles and techniques of strength training including strength physiology, performance factors, training recommendations, exercise techniques, and program design and management.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EXS132	Cardiovascular Fitness: Physiological Principles and Training Techniques		Covers principles and techniques of aerobic training and the application of these to the development of aerobic training programs. Includes instructional techniques and safety, and stresses injury prevention.	Prerequisites: None.		Acad	L+L 3.0 3.0 3.0
EXS138	Starting Your Own Personal Training Business		Overview of the personal training business in the fitness industry. Skills for becoming a successful and effective personal training business owner	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
EXS146	Introduction to Exercise Testing		Introductory course in exercise testing, to include health appraisal, risk stratification, and the selection and administration of common evidence-based assessments for apparently healthy populations.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor. Prior completion of or concurrent enrollment in EXS125 is recommended.		Acad	L+L 1.0 2.0 2.0
EXS150	Introduction to Sports Management		Introduction to the field of sports management, including sports marketing and sales, facility management, event management, professional sports, public relations, intercollegiate and interscholastic athletics.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EXS190	Small Group Personal Training in a Studio Setting		Planning and teaching of group exercise and fitness classes in a	Prerequisites: A grade of C or better in		Acad	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			studio setting. Leadership techniques for effective cueing, appropriate use of music, safety concerns, warm up, cool down and various formats for current popular classes.	EXS125 and EXS130 or accredited national fitness certification or permission of Instructor.			
EXS192	Small Group Personal Training in a Gym		Planning and leading small groups in various formats in a gym or health club setting. Development and implementation of safe and effective use of various types of popular equipment in a small group workout.	Prerequisites: A grade of C or better in EXS125 and EXS130 or accredited national fitness certification or permission of Instructor.		Acad	LEC 2.0 2.0 2.0
EXS205	Introduction to Sports Law		Application of legal principles to the sports industry. Focus on tort liability for sport administrators, managers and owners. Examines legal aspects of sports management, including laws and regulations governing player relationships, contracts, employee relations, civil rights, concessions and beverages, safety and concession product liability. Course explores how the law impacts the sports industry, both amateur and professional.	Prerequisites: A grade of C or better in EXS150.		Acad	LEC 3.0 3.0 3.0
EXS215	Resistance Training and Recovery Techniques		Fundamental methods for safe and effective instruction of resistance, functional, and athletic conditioning exercises. Application of foundational principles of physiology and kinesiology. Overview of warm-up, cooldown, and recovery techniques.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor.		Acad	L+L 3.0 4.0 4.0
EXS217	Cardiorespiratory and Flexibility Training		Fundamental methods for safe and effective instruction of cardiorespiratory and flexibility training	A grade of C or better required in all Prerequisites. Prerequisites		Acad	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			exercises. Application of foundational principles of physiology and kinesiology.	or Corequisites: EXS101 or permission of Instructor.			
EXS220	Personal Trainer Practicum		Integration of knowledge, skills and abilities developed in the prerequisite classes to develop best practices as a fitness professional. Assessment of clients' baseline fitness; development and implementation of a safe and appropriate exercise program. This capstone classroom experience is for students in the personal training certificate program prior to internship.	Prerequisites: A grade of C or better in EXS112, EXS125, EXS130, and FON105.		Acad	L+L 3.0 3.0 3.0
EXS241	History of Sports in the United States		Traces the development of sports in the United States. Explores the heritage of major sports and reviews significant historical and current issues related to sports in America	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
EXS246	Advanced Exercise Testing		Advanced course in exercise testing, to include health appraisal, risk stratification, and the selection and administration of evidence-based assessments for apparently healthy and athletic populations. Pharmacology, special populations, and environmental conditions are also examined.	Prerequisites: A grade of C or better in EXS146 or permission of Instructor.		Acad	L+L 2.0 3.0 3.0
EXS250	Applied Kinesiology		Anatomical and physiological fundamentals and applications of human movement. Emphasizes the relationship between anatomical structure and function of the musculoskeletal system. Examines neuromuscular aspects of human motion and	Prerequisites: A grade of C or better in (BIO160 or BIO201) and EXS125 and (EXS130 or EXS216).		Acad	LEC 4.0 4.0 4.0 LAB 0.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			fundamental stabilization and movement of the extremities and spine. Analyzes kinesiological aspects of functional movement in the human body, and identifies normal and abnormal human movement patterns.				
EXS255	Program Design: Muscular Fitness and Performance		Advanced principles of muscular fitness, sports performance, and recovery techniques including needs analysis, interpretation of assessment outcomes, and evidence-based program design for healthy and athletic populations. Considerations for special populations and environments also examined.	Prerequisites: A grade of C or better in (EXS125 and EXS146) or permission of Instructor.		Acad	L+L 3.0 4.0 4.0
EXS257	Program Design: Cardiorespiratory Fitness		Advanced principles of cardiorespiratory fitness and weight management including needs analysis, interpretation of assessment outcomes, and evidence-based program design for healthy and athletic populations. Considerations for special populations and environments are also examined.	Prerequisites: A grade of C or better in (EXS125 and EXS146) or permission of Instructor.		Acad	L+L 3.0 4.0 4.0
EXS270	Exercise Science Internship		A capstone experience in a fitness or health related facility. Eighty (80) hours of designated work per credit.	Prerequisites: Completion of nine (9) credits of EXS courses with a grade of C or better, current CPR and AED card, and permission of Department/ Division Chair and/or the Program Director.	CPR and AED certification s must be current through the duration of the internship. EXS270 may be repeated for a maximum of six (6) credits.	Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EXS270AA	Exercise Science Internship		A capstone experience in a fitness or health related facility. Eighty (80) hours of designated work per credit.	Prerequisites: Completion of nine (9) credits of EXS courses with a grade of C or better, current CPR and AED card, and permission of Department/ Division Chair and/or the Program Director.	CPR certification must be current through the duration of the internship. EXS270AA may be repeated for a maximum of six (6) credits.	Acad	LAB 1.0 1.0 0.0
EXS270AB	Exercise Science Internship		A capstone experience in a fitness or health related facility. 160 hours of designated work per credit.	Prerequisites: Completion of nine (9) credits of EXS courses with a grade of C or better, current CPR and AED card, and permission of Department/ Division Chair and/or the Program Director.	CPR and AED certifications must be current through the duration of the internship. EXS270AB may be repeated for a maximum of six (6) credits. Repeats 3.0 6.0	Acad	LAB 2.0 2.0 0.0
EXS275	Sport Science Internship		A capstone experience in a fitness or health related facility supervised by a National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialists (CSCS) professional. Eighty (80) hours of designated work per credit.	Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division.	EXS275 may be repeated for a maximum of six (6) credits.	Acad	L+L 3.0 3.0 0.0
EXS275AA	Sport Science Internship		A capstone experience in a fitness or health related facility supervised by a National Strength and	Prerequisites: Completion of a grade of C or better in nine (9)	EXS275AA may be repeated for a maximum	Acad	L+L 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Conditioning Association (NSCA) Certified Strength and Conditioning Specialists (CSCS) professional. Eighty (80) hours of designated work per credit.	credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division.	of six (6) credits.		
EXS275AB	Sport Science Internship		A capstone experience in a fitness or health related facility supervised by a National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialists (CSCS) professional. Eighty (80) hours of designated work per credit.	Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division.	EXS275AB may be repeated for a maximum of six (6) credits.	Acad	L+L 2.0 2.0 0.0
EXS280	Special Topics in Exercise Science		Conceptual and research basis of current topics in exercise science.	Prerequisites: A grade of C or better in EXS101, or EXS112, or EXS125, or permission of Instructor.	EXS280 may be repeated for credit.	Acad	LEC 2.0 2.0 2.0
EXS280AA	Special Topics in Exercise Science		Conceptual and research basis of current topics in exercise science.	Prerequisites: A grade of C or better in EXS101, or EXS112, or EXS125, or permission of Instructor.	EXS280AA may be repeated for credit.	Acad	LEC 0.5 0.5 0.5
EXS280AB	Special Topics in Exercise Science		Conceptual and research basis of current topics in exercise science.	Prerequisites: A grade of C or better in EXS101, or EXS112, or EXS125, or permission of Instructor.	EXS280AB may be repeated for credit.	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
EXS282AA	Service-Learning Experience in Exercise Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	EXS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
EXS282AC	Service-Learning Experience in Exercise Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	EXS282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
EXS290	Introduction to Evidence-Based Practice		Introduction to best practices in the acquisition, analysis, synthesis, and potential application of research in the discipline of exercise science. Specific emphasis on the application of research-based evidence for applied problem solving in exercise science.	Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Instructor. EXS101 recommended.		Acad	LEC 3.0 3.0 3.0
EXS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
EXS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
EXS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
FAC101	HVAC for Residential Systems I	HVA101	Introduction to major components and functions of residential heating, ventilation, and air conditioning (HVAC) systems, to include heat flow and basic electrical concepts.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FAC115	Motors, Controls and Wiring Diagrams	ELC115	Principles of three-phase motors. Wye and delta wiring. Calculation of motor current draw. Sequence of operation, wiring diagram and electrical components associated with industrial equipment. Procedures for evaluating electrical problems. Safety stressed.	Prerequisites: A grade of C or better in CON/HVA13 1 or permission of Department.		Occ	LEC 3.0 3.0 3.0
FAC115LL	Motors, Controls and Wiring Diagrams Lab		Drawing wiring diagrams, wiring systems and checking electrical circuits. Troubleshooting electrical problems of three-phase motors and controls. Safety stressed.	Prerequisites: A grade of C or better in ELC/FAC/HV A105 or permission of department or ELC/FAC/HV A105LL or permission of department. Corequisites: ELC/FAC115 or permission of Department or Division.		Occ	LAB 1.0 3.0 3.0
FAC186	Electro-Mechanical Devices		Concepts, principles, maintenance, and troubleshooting of mechanical and electro-mechanical devices. Mechanical alignment of shafts, pillow blocks, gears, and couplers on mechanical equipment. Bearings removal and installation. Installation and troubleshooting of pump seals. Vernier calipers, micrometers, tachometers. Use and operation of air flow hoods for air balancing. Belt drive systems and set up and operation of variable frequency drives. Cooling tower water treatment controls and chemical additives.	Prerequisites: A grade of C or better in HVA130 or permission of Department.		Occ	L+L 3.0 5.0 5.0
FAC210	Facilities Air Conditioning Systems	HVA210	Fundamental principles of air conditioning including all-air, all-water	Prerequisites: A grade of C or better in		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			(hydronic) and air-water combination systems. Overview of the physical principles, including air distribution systems and heating and cooling load calculation. System components and application theory for boilers, chillers, pumps, fans, and cooling towers. Theory and application of central air conditioning systems, air cleaning and humidification devices, pressure boosting, heat storage, expansion and pressurization equipment. Properties of water, pressure distribution in hydronic systems, flow in pipes, pressure drop/head loss, pump applications and pressurization of open and closed hydronic systems. Fundamentals of low and high temperature water systems.	HVA130 or permission of Department.			
FAC220	Controls and Instrumentation		Control theory and terminology, pneumatics, electrical, and electronic control devices, flow control devices, elementary and advanced control systems. Electric and electronic control systems, programmable logic controls, and facilities management systems. Process and terms used in instrumentation, methods of heat transfer, calculations for heat temperature, and heat transfer. Measuring and calculating pressure, fluid flow, measuring humidity, control action, and instrumentation symbols.	Prerequisites: A grade of C or better in FAC/HVA210 or permission of Department.		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FAC231	Codes	HVA231	Local codes, Federal Housing Administration and Urban Development standards. Acceptable building practices based on the Uniform Building Code, National Electric Code, Uniform Mechanical Code, and the Uniform Plumbing Code. Impact of American with Disabilities Act (ADA) on new and existing facilities.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
FAC235	Commercial Air and Water Test and Balance		Specific types of duct distribution systems, fans, coil types and applications. Characteristics of Heating Ventilation and Air Conditioning (HVAC) piping systems. Specific types of pumps and applications. Air and water flow measuring and control devices. Collection and analysis of data specific to air handling systems. Principles of fluid dynamics, thermal loading factors, system design, and component performance. Test and balance plans for air and water systems.	Prerequisites: A grade of C or better in HVA210.		Occ	L+L 4.0 6.0 6.0
FAC240	Fire Protection Systems	OSH240	Building occupant safety requirements including industry standards, regulations, building codes, fire codes and life safety codes. Fundamentals of fire protection system operation, inspection and maintenance. Principles of life safety systems including fire door and walls, smoke control systems, and exit components.	Prerequisites: A grade of C or better in OSH106AC.		Occ	LEC 3.0 3.0 3.0
FAC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to	Prerequisites: Permission of Program		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
FAC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
FAC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development. COMMON COMPETENCY COURSE				
FCS250	Portfolio Development and Professional Writing		Techniques of portfolio development to document prior learning gained through experience, training, and/or previous education. Includes study of learning styles and levels, analysis of personal and vocational experiences, synthesis of these with competencies for specific courses, and integration of the above with other material to create a portfolio to be introduced for evaluation for credit.	Prerequisite: A grade of C or better in 12 credit hours of CFS and/or FCS coursework or permission of Program Director.		Occ	LEC 3.0 3.0 0.0
FCS260	Family and Consumer Science Internship		Work experience in community-based, family-focused service and/or educational organizations. 80 hours of designated work per credit.	Prerequisites: Permission of Instructor.	FSC260 may be repeated for a total of six (6) credit hours.	Occ	LEC 1.0 1.0 0.0
FLA240	Foreign Language Teaching Methods		Introduction to methods and techniques for second-language teaching. Principles and procedures for building language proficiency, including the assessment of practical experience through mini-teaching situations	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
FLA282AA	Service-Learning Experience in Foreign Languages		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	FLA282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
FLA282AB	Service-Learning Experience in Foreign Languages		Unpaid Service-Learning (SL) experience,	Prerequisites: Permission of Instructor.	FLA282AB may be repeated for	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			completed with approved community partner.		a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.		
FLA282AC	Service-Learning Experience in Foreign Languages		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	FLA282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
FMP104	Scriptwriting		Overview of the script writing process including developing objectives, writing research agendas, designing content outlines, as well as writing a treatment, training script, marketing script, and dramatic training script. Emphasis on the dramatic motion picture screenplay format, the dramatic curve, believable character creation, and dialogue within the first ten pages of a screenplay.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FMP105	Studio Production		Multiple camera studio production for corporate, film, cable, and broadcast applications. Basic single and multi-camera production techniques, talent and camera blocking, set design, scriptwriting; shooting; lighting, audio and video recording; production crew team member experience, pre-production planning	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and budgeting and decision-making.				
FMP108	Video Production		Foundations of media production, including single camera shooting, audio recording, lighting, and editing.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
FMP111	Screenwriting I		Provides a foundation in screenwriting for film and television, including introduction to story theory, character development, and screenplay format.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FMP111AA	Scripting for the Media		Provides an overview of screenwriting for short documentaries, podcasts, training films, commercials and public service announcements (PSAs).	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FMP114	Audio Production		Focus on audio in the production of media projects. Emphasis on location-based, studio and sound room for corporate, cable and broadcast applications. Concepts covered include: microphones and audio recording equipment; audio production techniques using shotgun microphones or lavaliers while in the field; audio recording in the sound room, multi-track recording, and mixdown; audio editing using a non-linear computer program; music libraries; sound effects; and editing in audio post-production.	Prerequisites: A grade of C or better in FMP105 or FMP108.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
FMP115	Introduction to Editing for Media		Introduction to editing for media on a nonlinear editing system.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
FMP117	Introduction to Cinematography	FMT117	Introductory workshop focusing on basic film and video camera operation and lighting. Emphasis on the role of the cinematographer, basic camera operation and lens selection,	Prerequisites: A grade of C or better in FMP108, or FMT136, or permission of Instructor.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			introduction to cinematic storytelling to include interpreting the script, basic lighting techniques, exposure meters, film stocks, and planning for the editing style.				
FMP125	Podcasting		Overview of evolution and key elements of podcasting. Focuses on development and creation of original podcasts, including pre-production, post-production, and peer review techniques.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
FMP134	Pre-Production for Film and Media		Introduction to elements of pre-production for film, television, and commercial productions. Focuses on aesthetics, writing, budgeting, and selecting cast and crew. Features pre-production meetings to establish style, location, production design, shot list/storyboard, sound design, and shooting schedule. Pre-production of one narrative or collaborative commercial project required. Working as crew on one class shoot required.	Prerequisites: A grade of C or better in FMT100, or FMP108, or permission of Department or Division.		Occ	L+L 3.0 4.0 4.0
FMP151	TV and New Media Production	FMT151	Introduction to multi-camera television production in studio and on location. Emphasizes teamwork and group production through a variety of program types.	Prerequisites: A grade of C or better in FMP105, or FMT100, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
FMP170	Introduction to Documentary Filmmaking		An in-depth study into the art, ethics and process of documentary filmmaking.	Prerequisites: None. ENG101 or ENG107 strongly recommended.	FMP170 is a writing intensive course. Students who have not completed at least one semester of college-level English	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					composition are encouraged to speak to the instructor or program director about their preparation.		
FMP202	Directing		Techniques for directing and blocking talent. Techniques for working with location and studio crews. Field and studio multi-camera production equipment usage. Advanced single and multi-camera shooting styles for corporate, cable and broadcast productions. Advanced post-production techniques for audio, video special effects for editing. The role of the director/producer in pre-production planning for the shoot. Advanced scriptwriting, script breakdowns, production forms, budgeting, and developing positive client relationships.	Prerequisites: A grade of C or better in FMP105.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
FMP204	Advanced Video Production		Advanced techniques of digital video production from concept to delivery with an emphasis on production in the field.	Prerequisites: A grade of C or better in FMP108.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
FMP206	Production Design	FMT206	Intermediate workshop on Film Production Design focusing on areas such as script breakdowns for design elements, theories for symbolic and iconic visual content, color and lighting theory, miniatures and model construction and other aspects of production design.	Prerequisites: A grade of C or better in (FMP108 and [FMP134 or FMT134]), or FMT136, or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
FMP208	Production Company Management		The coordination and supervision of the personnel involved in the production team;	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			preparation of charge-back system; facility budgets in equipment, personnel, and operation; interaction with senior management.				
FMP211	Screenwriting II		Advanced workshop in screenwriting for feature films and television.	Prerequisites: A grade of C or better in FMP111 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
FMP213AA	Motion Picture Workshop: On-Location Shooting		Practical work and classes in film production. Features on location shooting.	Prerequisites: A grade of C or better in FMT136 or permission of Instructor.		Occ	L+L 4.0 4.0 4.0
FMP214AA	Video Production Internship		Video production work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Instructor.	FMP214AA may be repeated for a total of six (6) credit hours.	Occ	L+L 1.0 1.0 0.0
FMP214AB	Video Production Internship		Video production work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Instructor.	FMP214AB may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 2.0 0.0
FMP214AC	Video Production Internship		Video production work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Instructor.	FMP214AC may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 3.0 0.0
FMP215	Digital Video Effects		Basics of video-production including the use of colors, textures, and shapes in the preparation of graphics for video production. Graphics design using the rules of good design and techniques for interaction with Producer/Directors. Story boarding and animation techniques, character generation. Video special effects creation and design, logo and photo import into video productions.	Prerequisites: A grade of C or better in FMP108, or FMP115, or permission of Instructor. FMP115 strongly recommende d for students in Film and Media Production (3570). ADA/ART/M MT184 strongly		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				recommende d.			
FMP216	Screenwriting III		Advanced workshop in narrative screenwriting for film and television.	Prerequisites: A grade of C or better in FMP211.		Occ	L+L 3.0 7.0 7.0
FMP260	Film and Media Producing and Financing		Guides the independent film/video producer through basic business aspects of production. Examines methods of setting up a production company, strategies for financing and distribution, and approaches to packaging a film/video project. Includes development of a prospectus on a specific film/video project.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
FMP270	Documentaries for Social Change	FMT270	Study of and practical application in social documentary film production. Focuses on diverse voices and styles of social documentaries, philosophical issues faced by the filmmaker, technical considerations, and business elements required for financial and commercial success of the social documentary.	Prerequisites: A grade of C or better in (FMP108 and FMP115), or FMT136, or permission of Instructor.	FMP/FMT270 may be repeated for a total of twelve (12) credits.	Occ	L+L 4.0 6.0 6.0
FMP275	Advanced Portfolio Production		Advanced workshop in portfolio development for Producers, Directors, Cinematographers, Production Designers, Editors, and Screenwriters.	Prerequisites: Permission of Instructor.	All students must submit an application. FMP275 may be repeated for a total of twelve (12) credits.	Occ	L+L 4.0 7.0 7.0
FMP294AA	Special Topics in Motion Picture, Television, Documentary, and New Media Production	FMT294A A	Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production.	Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor.	FMP/FMT294AA may be repeated for a total of three (3) credit hours.	Occ	LEC 1.0 1.0 1.0
FMP294AB	Special Topics in Motion Picture, Television, Documentary, and	FMT294A B	Exploration of current topics, issues and aspects of motion picture, television,	Prerequisites: A grade of C or better in (FMP108 and	FMP/FMT294AB may be repeated for a total of	Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	New Media Production		documentary, and new media production.	FMP115) or FMT136, or permission of Instructor.	six (6) credit hours.		
FMP294AC	Special Topics in Motion Picture, Television, Documentary, and New Media Production	FMT294A C	Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production.	Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor.	FMP/FMT2 94AC may be repeated for a total of nine (9) credit hours.	Occ	LEC 3.0 3.0 3.0
FMP298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
FMP298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
FMP298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
FMT100	Introduction to Production		Introduction to the major production components of a multimedia project.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
FMT107	Career Pathways in the Media		Emphasis on theories of broadcasting, how the media functions in our society, the business structure of the U.S. media environment, the cultural import and potential impact of the programming and films, and the growth of new communications technologies.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Occ	LEC 3.0 3.0 3.0
FMT117	Introduction to Cinematography	FMP117	Introductory workshop focusing on basic film and video camera operation and lighting. Emphasis on the role of the cinematographer, basic camera operation and lens selection, introduction to cinematic storytelling to include interpreting the script, basic lighting techniques, exposure meters, film stocks, and planning for the editing style.	Prerequisites: A grade of C or better in FMP108, or FMT136, or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
FMT118	Lighting for Film, TV, and Media		Introductory workshop focusing on lighting for video and film productions. Emphasis on the role of the cinematographer in developing a look and mood for a production and to tell a story through the use of light and color.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FMT120	Introduction to Sound Design for Film and Video	MUC120	Basic principles of recording and mixing sound for film and video. Includes voice-over, automatic dialog replacement (ADR), foley, ambience, special effects and music. Emphasis on analog and digital recording techniques in the field as well as in a controlled environment.	Prerequisites: A grade of C or better in (FMT100 and FMT136) or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
FMT121	Story Theory for Film, Television and Media		Introduction to story theory and structure as it applies to screenwriting for feature films, television programs (one-hour dramas and sitcoms) and related media.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FMT123	Feature Screenwriting: First Draft		Intermediate workshop focused in writing initial draft of a narrative feature film screenplay.	Prerequisites: A grade of C or better in FMT121.		Occ	L+L 3.0 6.0 6.0
FMT124	Television Screenwriting: Writers Room		Intermediate workshop focused on understanding the collaborative nature of series/television (TV) story development (i.e., writers room) and writing initial draft of a spec script for an existing TV one-hour drama or half-hour sitcom.	Prerequisites: A grade of C or better in FMT121.		Occ	L+L 3.0 6.0 6.0
FMT134	16mm Film Workshop: Pre-Production		Introduction to elements of pre-production for motion picture and television. Focuses on aesthetics, scriptwriting, budgeting, and selecting cast and crew. Features pre-production meetings to establish style, location, art design, shot sheet/storyboard, sound design, shooting schedule and film stock/video tapes. Pre-production of one film project and one video project required. Working as crew on one class shoot required.	Prerequisites: A grade of C or better in FMP105, or FMT100, or permission of Department or Division.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FMT135	16mm Film Workshop: Production		Introduction to elements of production for motion picture and television. Focuses on directing, crew responsibilities, camera operation, lenses, lighting and sound recording. Production of one film shoot and one video shoot required.	Prerequisites: A grade of C or better in FMT134, or permission of Department or Division.		Occ	L+L 3.0 3.0 3.0
FMT136	16mm Film Workshop: Post-Production		Introduction to elements of post-production for motion picture and television. Focuses on editing, titles, sound design and marketing strategies. Post-production and marketing of one film and one video required.	Prerequisites: A grade of C or better in FMT135 or permission of Department or Division.		Occ	L+L 3.0 3.0 3.0
FMT151	TV and New Media Production	FMP151	Introduction to multi-camera television production in studio and on location. Emphasizes teamwork and group production through a variety of program types.	Prerequisites: A grade of C or better in FMP105, or FMT100, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
FMT206	Production Design	FMP206	Intermediate workshop on Film Production Design focusing on areas such as script breakdowns for design elements, theories for symbolic and iconic visual content, color and lighting theory, miniatures and model construction and other aspects of production design.	Prerequisites: A grade of C or better in (FMP108 and [FMP134 or FMT134]), or FMT136, or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
FMT217	Advanced Cinematography		Advanced workshop focusing on film and video camera operation and lighting. Emphasis on the role of the cinematographer and camera department, in-depth camera operation and lens selection, advanced cinematic storytelling to include interpreting the script, advanced lighting techniques, exposure meters, film stocks, and	Prerequisites: A grade of C or better in FMP/FMT117 and (FMP204 or FMT241), or permission of Instructor.	FMT217 may be repeated for a total of six (6) credit hours. Repeats 2.0 6.0	Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			planning for the editing style. In-depth analysis of on-set communication and collaboration between the Cinematographer and other key crew members.				
FMT220	Advanced Sound Design for Film and Video	MUC220	Explores techniques and advanced applications used in designing sound using original student footage on a non-linear editing system.	Prerequisites: A grade of C or better in FMT/MUC120 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0
FMT223	Feature Screenwriting: The Rewrite		Advanced workshop focused in rewriting narrative feature film screenplay, developing an individual writing voice and understanding the professional feature writing landscape.	Prerequisites: A grade of C or better in FMT123.		Occ	L+L 3.0 6.0 6.0
FMT224	Television Screenwriting: Original TV Pilot		Advanced workshop focused on creating an original television series concept, writing an original pilot script for the series, developing an individual writing voice and understanding the professional television writing landscape.	Prerequisites: A grade of C or better in FMT121.		Occ	L+L 3.0 6.0 6.0
FMT230	Motion Picture Directing		Theory and practice in directing the motion picture. Includes overview of the roles and responsibilities of the film director, examples of film directing, and practice sessions in analyzing a script, creating a scene, working with actors, conducting rehearsals, planning the camera movements and overseeing elements of a production.	Prerequisites: A grade of C or better in (FMT117, FMT/MUC120, FMT121, and FMT241) or permission of Instructor.	FMT230 may be repeated for a total of eight (8) credit hours.	Occ	L+L 4.0 4.0 4.0
FMT241	AVID Media Composer Editing		Editing on a Media Composer non-linear editing system, including timeline editing, trimming, dialog and action editing, refining audio, basic multi-layer	Prerequisites: A grade of C or better in FMT136 or permission of Instructor.		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			motion, and 3D effects; also covers basic and intermediate color correction, intermediate and three-dimension titling, working with tape and file based media, and media management.				
FMT242	Professional Portfolio for Film, TV, and Media		Explores techniques and applications used in editing an individual project on an editing system.	Prerequisites: A grade of C or better in FMT241 or permission of Instructor.	Students must have previously created production footage from other course work or independent work for use in the class projects. FMT242 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 4.0 4.0
FMT242AA	Professional Portfolio in Screenwriting		Explores techniques and applications used in screenwriting for an individual project.	Prerequisites: A grade of C or better in FMT223 or FMT224.	FMT242AA may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 4.0 4.0
FMT243	Introduction to Video Compositing and Title Animation		Introduction to computer-based video compositing and title animation.	Prerequisites: A grade of C or better in FMT241 or permission of Instructor.		Occ	L+L 4.0 6.0 6.0
FMT244	Film Finishing		Introduction to editing system and applications.	Prerequisites: A grade of C or better in FMT241 or permission of Instructor.		Occ	L+L 4.0 6.0 6.0
FMT248	Advanced Film Production Techniques		Advanced workshop in the techniques of film production. Emphasizes real world simulation of production departments.	Prerequisites: A grade of C or better in (FMP/FMT117 and FMT/MUC120) or permission of Instructor.		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FMT251	Advanced Studio Production		Advanced video production within a studio environment.	Prerequisites: A grade of C or better in (FMP/FMT117, FMT121, FMT151, and FMT241) or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
FMT260	Motion Picture Producing and Production Management		Introduction to functions specific to producing, production management, and business affairs for film, television, and new media productions.	Prerequisites: A grade of C or better in FMT136.		Occ	L+L 3.0 3.0 3.0
FMT263	Film Style, Theory and Analysis		Survey of the development of the art and theory of motion pictures, including study and criticism of stylistic elements. Tailored toward teaching different approaches and techniques of filmmaking as demonstrated in a variety of historic film movements. Designed for students focusing on filmmaking.	Prerequisites: A grade of C or better in FMT136 or permission of Instructor.		Occ	LEC 4.0 4.0 4.0
FMT270	Documentaries for Social Change	FMP270	Study of and practical application in social documentary film production. Focuses on diverse voices and styles of social documentaries, philosophical issues faced by the filmmaker, technical considerations, and business elements required for financial and commercial success of the social documentary.	Prerequisites: A grade of C or better in (FMP108 and FMP115), or FMT136, or permission of Instructor.	FMP/FMT270 may be repeated for a total of twelve (12) credits.	Occ	L+L 4.0 6.0 6.0
FMT280	The Art of Editing		A lab intensive post-production course. Emphasizes the art of editing movie and television media and the development of editing skills. Editing products, including demo reels, from instructor provided or student provided quality raw footage.	Prerequisites: A grade of C or better in FMT241 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
FMT283	Advanced Non-Linear Editing Techniques		Explores techniques and advanced applications used in creating and	Prerequisites: A grade of C or better in		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			editing an advanced project on a non-linear editing system.	FMT241 or permission of Instructor.			
FMT283AA	Advanced Non-Linear Editing Techniques: AVID		Explores techniques and advanced applications used in creating and editing an advanced project on a non-linear editing system.	Prerequisites: A grade of C or better in FMT241 or permission of Instructor.		Occ	L+L 4.0 6.0 6.0
FMT294AA	Special Topics in Motion Picture, Television, Documentary, and New Media Production	FMP294A A	Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production.	Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor.	FMP/FMT2 94AA may be repeated for a total of three (3) credit hours.	Occ	LEC 1.0 1.0 1.0
FMT294AB	Special Topics in Motion Picture, Television, Documentary, and New Media Production	FMP294A B	Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production.	Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor.	FMP/FMT2 94AB may be repeated for a total of six (6) credit hours.	Occ	LEC 2.0 2.0 2.0
FMT294AC	Special Topics in Motion Picture, Television, Documentary, and New Media Production	FMP294A C	Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production.	Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor.	FMP/FMT2 94AC may be repeated for a total of nine (9) credit hours.	Occ	LEC 3.0 3.0 3.0
FMT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
FMT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Occ	LAB 2.0 10.0 0.0
FMT296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
FMT296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FMT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
FMT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
FMT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to maximize student development.				
FON100	Introductory Nutrition		Introduction to the science of food and human nutrition. Current sustainable dietary recommendations and applications for maximizing well-being and minimizing risk of chronic disease throughout the life cycle. An overview of the nutrients, emphasizing the importance of energy and fluid balance, and optimal functioning of the digestive system. Understanding factors that influence food intake in different cultures. Methods for evaluating credibility of nutrition claims, a focus on modern food safety and technology practices, and a worldview of nutrition are included. Emphasis is on personal dietary behavior change for a holistic life of wellness.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FON100LL	Introductory Nutrition Laboratory		Introduction to nutrition using anthropometric, biochemical, clinical, and dietary analysis. Includes the use of qualitative and quantitative methodology to determine nutritional status and evaluate methodological applications. Emphasis on relationship between energy balance and weight regulation and health.	Prerequisites: None.	Self-evaluative laboratory experience to complement FON100.	Occ	LAB 1.0 3.0 3.0
FON101	Critical Food Studies		Introduction to foundational methodologies and concepts central to the interdisciplinary field of critical food studies. Basic concepts related to food governance, food security, food and social	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			justice, and sustainability. Exploration of questions related to the food system including food production and distribution, access to food, and ecological consequences of agricultural practices. Issues of sustainability and equity are evaluated throughout the agri-food system from farm to fork.				
FON104	Certification in Food Service Safety and Sanitation		Preparation for and certification in a national food sanitation and safety program. Emphasis on food from purchasing, receiving, and storing to preparation, holding, and serving. Focuses on safe and sanitary food service facilities and equipment, employee habits and personal hygiene, and role of management in safety and sanitation. Includes time-temperature principles, foodborne illnesses, pest control, accident prevention, standards for cleaning and sanitizing, and regional regulations and standards.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
FON125	Introduction to Professions in Food, Nutrition, and Dietetics		Overview and discussion of career opportunities in the fields of food, nutrition, and dietetics. Includes information about history, ethics, standards of practice, communication and counseling skills. Emphasis on how to become a Registered Dietitian Nutritionist or a Dietetic Technician Registered.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
FON135	Sustainable Cooking		Basic cooking techniques for healthful and enjoyable eating. Emphasis on strategies for maximizing the use of	Prerequisites: None.	Laboratory component involves hands-on experience	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			whole, local, and nutrient-dense food while focusing on applying the dietary recommendations for optimal health to food choices. Opportunities to learn about sustainable food living and identifying resources that enable people to be more in control of their food supply. Covers issues of diversity as related to sustainable food systems and equitable access to food.		in the college teaching or commercial kitchen and garden (or similar teaching or commercial food operation). Students employed in a farm-to-table or similar operation may complete their hands-on portion under their employer's supervision.		
FON142AB	Science of Food		Exploration and Application of Scientific Principles of Food; experiences with ingredient functionality and application in cooking techniques.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
FON143	Food and Culture		Understanding diet in the context of culture. Historical, religious, and sociocultural influences on the development of cuisine, meal patterns, eating customs, cooking methods, and nutritional status of various ethnic groups. Traditional and contemporary food habits. Health and social impact of changes in diet. Preparation and serving of foods from many cultures.	Prerequisites: None.	FON143 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 3.0 3.0
FON161	Sustainable Food Production Systems		Overview of the global food system. Covers historical events impacting current food production model and the effects food systems have on the environment, health, and communities. Also	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			covers conventional agriculture and food safety concerns. Emphasis on the movement towards sustainable food systems.				
FON163	Sustainable Kitchen Practices		Overview of sustainable kitchen practices. Covers energy efficient appliances and equipment, as well as electricity and water conservation practices. Includes environmentally friendly kitchen products and methods for disposal of waste. Researching food sources, purchasing locally, and building relationships, and promoting local food equity are also covered. Emphasis in preparing organic, seasonal, and local foods, and developing sustainable menus.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
FON165	Sustainable Food Entrepreneurship		Overview of the process for starting a small food business. Covers stages for introducing a variety of food products into the market, food safety, and sanitation requirements. Includes business and marketing strategies, processing, labeling, and distribution requirements for different food product types such as dairy, meat, poultry, and fish. Covers the importance of diversity, equity, and inclusion for the sustainable food entrepreneur. Also covers available resources for small food business support.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FON207	Introduction to Nutrition Services Management		Principles, knowledge, and techniques required for effective nutrition services management. Includes nutrition service	Prerequisites: A grade of C or better in (MAT055, MAT056, and		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			issues in relation to health care trends, leadership skills, management theories and styles, food service manager responsibilities, and laws which pertain to nutrition service operations.	MAT057), or (MAT090, or MAT091, or MAT092), or satisfactory mathematics placement.			
FON210	Sports Nutrition and Supplements for Physical Activity		Principles of nutrition applied to fitness, exercise, and sports. Dietary fundamentals as applied to body fuels, hydration, and other unique needs for exercise and sports. Includes dietary guidelines for weight or endurance training, glycogen loading, the pre-game meal, and glycogen recovery. Emphasis on maximizing fitness, performance, and safety. Discussion of supplements and their effects on metabolic enhancement. Discussion of anabolic, catabolic, and energy-producing agents. Addresses current supplements on the market.	Prerequisites: A grade of C or better in FON100 or FON241.		Occ	LEC 3.0 3.0 3.0
FON225	Research in Complementary and Alternative Nutrition Therapies		Introduction to basic research methods and statistics as applied to complementary and alternative nutrition therapies. Emphasis on the analysis and interpretation of health-related research.	Prerequisites: A grade of C or better in MAT092 or equivalent or satisfactory score on district placement exam.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L]	Occ	LEC 3.0 3.0 3.0
FON230	Nutrition for Special Populations		Nutritional changes and appropriate management across the lifespan to maximize health and longevity. Addresses needs of those individuals with particular dietary restrictions, requirements or deficiencies. Includes	Prerequisites: A grade of C or better in FON100, or FON241, or permission of Instructor.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			special dietary needs of those diagnosed with common pathologies such as heart disease, diabetes.				
FON241	Principles of Human Nutrition		Scientific principles of human nutrition. Emphasis on scientific literacy and the study of nutrients for disease prevention. Includes macronutrients and micronutrients, human nutrient metabolism and nutrition's role in the health of the human body throughout the life cycle. Addresses nutrition principles for prevention of nutrition-related health conditions.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FON241LL	Principles of Human Nutrition Laboratory		Self-evaluative laboratory experience to complement FON241, Principles of Human Nutrition using anthropometric, biochemical, clinical, and dietary analysis. Includes the use of qualitative and quantitative methodology to determine nutritional status and evaluate methodological applications.	Prerequisites: A grade of C or better in FON241 or Corequisites: FON241.		Occ	LAB 1.0 3.0 3.0
FON242	Introduction to Medical Nutrition Therapy		Introduction to fundamental principles of medical nutrition therapy. Introduces the study of nutritional therapy of disease and evidence-based practice in prevention and nutritional management of diseases. Nutrition care planning for chronic diseases is taught via a variety of methods including case studies. This course applies foundational skills in the application of the Nutrition Care Process (NCP) for diet therapy implementation and	Prerequisites: A grade of C or better in BIO160 and FON241.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			documentation. Includes strategies to promote dietary adherence and the development of educational programs for a diverse adult population.				
FON244AA	Food Service Management Practicum		Classroom preparation and training, under the instruction and supervision of a registered dietitian. Application of principles, knowledge, and skills required in the delivery of nutrition services for food service management including food service operations, quantity food production, procurement, organizing and management principles, facility design and equipment, financial management, food safety and sanitation, menu planning, and marketing.	Prerequisites: A grade of C or better in (FON125, FON142AB, FON207, and FON242) and permission of Program Director. Corequisites: FON244AB.	FON244AA students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies.	Occ	LEC 2.0 2.0 2.0
FON244AB	Food Service Management Practicum Laboratory		Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge, and skills required in the delivery of nutrition services for food service management including food service operations, quantity food production, procurement, organizing and management principles, facility design and equipment, financial management, food safety and sanitation, menu planning, and marketing.	Prerequisites: A grade of C or better in (FON125, FON142AB, FON207, and FON242) and permission of Program Director. Corequisites: FON244AA.	FON244AB students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies.	Occ	LAB 2.5 10.0 0.0
FON245AA	Medical Nutrition Therapy Practicum		Classroom preparation and training, under the instruction and supervision of a registered dietitian. Understanding of principles, knowledge, and skills required for the delivery of medical	Prerequisites: A grade of C or better in (FON125, FON242, and HCC145AA) and (MAT092, or equivalent, or	FON245AA students must be in compliance with the Maricopa Community Colleges Allied	Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			nutrition therapy. Comprehension of nutritional screening, assessment, monitoring, and evaluation for common and complex medical conditions, medical documentation, patient interviewing and counseling, and education in health promotion and disease prevention.	satisfactory score on district placement exam) and permission of Program Director. Corequisites: FON245AB.	Health Program Student Policies.		
FON245AB	Medical Nutrition Therapy Practicum Laboratory		Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge, and skills required for the delivery of medical nutrition therapy. Perform nutritional screening, assessment, monitoring, and evaluation for common and complex medical conditions, medical documentation, patient interviewing and counseling, and education in health promotion and disease prevention.	Prerequisites: A grade of C or better in (FON125, FON242, and HCC145AA) and (MAT092, or equivalent, or satisfactory score on district placement exam) and permission of Program Director. Corequisites: FON245AA.	FON245AB students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies.	Occ	LAB 2.5 10.0 0.0
FON246AA	Community Nutrition Practicum		Classroom preparation and training, under the instruction of a registered dietitian. Understanding of principles, knowledge and skills required in the delivery of nutrition services in community-based agencies, outpatient health care settings, and social service agencies. Includes knowledge and understanding of nutrition intervention and wellness promotion for individuals and groups across the lifespan, i.e. infants through geriatrics with a diversity of cultural, religious and social backgrounds.	Prerequisites: A grade of C or better in (FON125 and FON242) and permission of Program Director. Corequisites: FON246AB.	FON246AA students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies.	Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FON246AB	Community Nutrition Practicum Laboratory		Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge and skills required in the delivery of nutrition services in community-based agencies, outpatient health care settings, and social service agencies. Includes nutrition intervention and wellness promotion for individuals and groups across the lifespan, i.e. infants through geriatrics with a diversity of cultural, religious and social backgrounds.	Prerequisites: A grade of C or better in (FON125 and FON242) and permission of Program Director. Corequisites: FON246AA.	FON246AB students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies. Competencies in the lecture (FON246A A) met prior to their application in supervised practice settings during the practicum lab (FON246A B).	Occ	LAB 2.0 10.0 0.0
FON247	Weight Management Science		The comprehensive study of obesity as a disease of modern society due to multiple determinants. Use of evidence-based data and methods to assess and manage weight in various settings. Use of client-centered counseling strategies, including behavior change theories. Focus on discovering successful healthful long-term weight management strategies.	Prerequisites: A grade of C or better in FON100 or FON241 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
FON250	Nutrition and Dietetic Exam Review		This course is intended to prepare dietetic students for the national exam for the nutrition and dietetic technician, registered (NDTR) credential. An emphasis in food service and medical nutrition therapy will be reviewed to	Prerequisites: Permission of Program Director.	FON250 may be repeated for a total of three (3) credit hours. Completion of 2 or more nutrition	Occ	LEC 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			prepare students for national exam content. In addition, nutrition science principles and community nutrition will be covered. The current NDTR study guide will be used to guide exam preparation.		practicums recommend ed. FON250 should be taken the semester of graduation.		
FON270AA	Applied Nutrition Experience for Personal Trainers and Coaches		Applied nutrition course customized around the interests and needs of the individual student enrolled in the Nutrition Certificate for Personal Trainers and Coaches. Eighty (80) hours of designated work per credit.	Prerequisites: Completion of six (6) credits of FON courses with a grade of C or better, and permission of Department/ Division Chair and/or the Program Director.	FON270AA may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.8 0.0
FON298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
FON298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
FON298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
FOR105	Forensic Science: Physical Evidence		Scientific analysis and examination of physical evidence for forensic purposes. Covers fingerprints, shoe prints, tool marks, glass, soil and mineral evidence, firearms identification, paint chips, and arson and explosive evidence. Includes the history of forensic science, functions of the crime lab and criminalist career specialties	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
FOR106	Forensic Science: Biological Evidence		Scientific analysis and examination of biological evidence for forensic purposes. Covers blood, bloodstains, other biological fluids and stains, hair, DNA, toxicological evidence, controlled substances and alcohol. Includes the history of forensic	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			science, functions of the crime lab, and criminalist career specialties				
FOR275	Forensic Anthropology	ASM275	Survey of the role of forensic anthropologists, from the crime scene to the courtroom. Course focuses on how skeletal analysis can aid in medicolegal investigations, especially by identifying aspects of the life history of unknown individuals and by reconstructing events that took place at crime scenes. Covers both the legal aspects of forensic practice and the underlying biological basis for evidence obtained from skeletal remains. Examines applications of forensic anthropology in mass disasters, human rights investigations, and the deciphering of historic cases. Lab activities designed to illustrate techniques and principles central to the discipline.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB] General Education Designation : Natural Sciences (General) - [SG]	Acad	L+L 4.0 5.0 5.0
FOR286	Principles of Forensic Science		This course examines the diverse disciplines and techniques used by forensic scientists in the major sections recognized by the American Academy of Forensic Sciences (AAFS), which include anthropology, criminalistics, digital and multimedia services, general, engineering and applied sciences, jurisprudence, odontology, pathology/biology, psychiatry, and behavioral science, questioned documents and toxicology. Students will participate in laboratory activities that	Prerequisites: A grade of C or better in (BIO181 or BIO181XT) and [(CHM150 or CHM151) and CHM151LL], or CHM150AA, or CHM151AA, or permission of the Instructor, or Department or Division Chair.		Occ	LEC 4.0 4.0 4.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			demonstrate best practices and applications in these disciplines, including ethical practices and experiences in case reporting and providing expert testimony.				
FRE085AA	Speedy French I		Basic vocabulary and grammar to develop conversational skills in French	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
FRE085AB	Speedy French II		Intermediate vocabulary and grammar to develop conversational skills in French	Prerequisites: A grade of C or better in FRE085AA. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0
FRE085AC	Speedy French III		Advanced vocabulary and grammar to develop conversational skills in French.	Prerequisites: A grade of C or better in FRE085AB. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0
FRE101	Elementary French I		Basic grammar, pronunciation and vocabulary of the French language. Includes the study of French culture, practice of listening, speaking, reading and writing skills.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: FRE 1101	Acad	LEC 4.0 4.0 4.0
FRE101AA	Elementary French I		Basic grammar, pronunciation and vocabulary of the French language. Includes the study of French culture, practice of listening, speaking, reading and writing skills.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Acad	L+L 4.0 5.0 5.0
FRE102	Elementary French II		Continued study of grammar and vocabulary	Prerequisites: A grade of C	Course Attribute(s):	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of the French language along with the study of French culture. Emphasis on speaking, listening, reading and writing skills.	or better in FRE101 or FRE101AA or permission of Department or Division. Completion of prerequisites within the last three years is required.	General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: FRE 1102		
FRE102AA	Elementary French II		Continued study of grammar and vocabulary of the French language along with the study of French culture. Emphasis on speaking, listening, reading and writing skills.	Prerequisites: A grade of C or better in FRE101 or FRE101AA or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Acad	L+L 4.0 5.0 5.0
FRE115	Beginning French Conversation I		Conversational French. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in French. Designed for students seeking speaking and listening abilities with little emphasis on grammar	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
FRE116	Beginning French Conversation II		Continued development of speaking and listening skills for effective communication in French.	Prerequisites: A grade of C or better in FRE115 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
FRE201	Intermediate French I		Review of essential grammar of the French language and study of French culture.	Prerequisites: (FRE102 or FRE102AA with a grade	Course Attribute(s): General Education	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Continued practice and development of reading, writing, and speaking skills.	of C or better) or two years of high school French with an average of C or better or permission of Department or Division. Completion of prerequisites within the last three years is required.	Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: FRE 2201		
FRE202	Intermediate French II		Review of grammar, continued development of French language skills, and continued study of the French culture.	Prerequisites: A grade of C or better in FRE201 or three years of high school French with an average of C or better. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: FRE 2202	Acad	LEC 4.0 4.0 4.0
FRE225	Intermediate French Conversation I		Continued development of skills in conversational French for business or travel.	Prerequisites: A grade of C or better in FRE116 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
FRE226	Intermediate French Conversation II		Development of intermediate level skills in conversational French for business and travel.	Prerequisites: A grade of C or better in FRE225 or permission of Department or Division. Completion of prerequisites within the last		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				three years is required.			
FRE265	Advanced French I		In-depth exploration of a selected theme related to French culture. Involves reading selections from French literature, writing reports, and discussions in French. Emphasis on enhancing reading, writing and speaking skills.	Prerequisites: A grade of C or better in FRE202 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
FRE266	Advanced French II		Continuation of FRE265, Reading selections from French literature, written reports, and discussions in French designed to further develop reading, writing and speaking skills.	Prerequisites: A grade of C or better in FRE265 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
FRE296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to student's major or career interest or with permission of the Instructor.			
FRE296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
FRE296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
FRE296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FRE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
FRE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
FRE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
FSC101	Introduction to Fire Service Selection and Entry		Overview of the application and selection processes used by various fire departments and fire service organizations. Focus on the skills and abilities required for entry-level positions in the fire department, including oral and written communication skills, mathematical and mechanical skills, problem-solving skills, and physical agility and stamina. Elements of fire service culture and their effects on personal growth and interpersonal relationships. Major components of written application processes, requirements, preparation of resumes and their effect on employment prospects. Preparation for the interview to include communications skills, mental preparation techniques, behaviors, and the importance of the interview in the pre-employment process.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0
FSC102	Fire Department Operations		Introductory fire science course primarily designed for the fire department recruit. Includes firefighting skills, equipment, and administrative policies, fire department operations, personnel policies, and International Fire Service Accreditation Congress Practical Skills Testing. Satisfies minimum	Prerequisites: A grade of C or better in FSC105, FSC130, and permission of Instructor. Corequisites: (FSC134 or FSC234) and FSC174.		Occ	L+L 11.0 19.6 19.6

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			standards for certification testing set forth by the current Arizona State Training and Certifying Authority.				
FSC103	Advanced Firefighter		Comprehensive review of Fire Department Standard Operating Procedures, Evaluation of Fitness and Conditioning as they relate to fire ground skills. Emphasis on physical development and hands on activities providing participants with skills necessary to safely operate on the fire ground and at emergency scenes	Successful completion of the Fire Operations Academy Certified Firefighter I and II through Arizona Fire Marshal and current PASS on Candidate Physical Ability Test (CPAT).		Occ	L+L 7.0 10.6 10.6
FSC105	Hazardous Materials Awareness and Operations		Basic methods of recognition and identification based upon the chemical and physical properties of hazardous materials; basic safety procedures when utilizing specific types of protective clothing and equipment; basic tactical information relating to scene management. Satisfies minimum standards for certification testing set forth by the current ProBoard and/or Arizona State Training and Certifying Authority.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
FSC106	Introduction to Fire Protection		History and evaluation of fire department organization. Role of the fire service in the community. Responsibilities of the fire administrator including organization, departmental functions, interdepartmental relationships, management of buildings and equipment; techniques of fire-fighting. Also includes emergency medical	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			services and fire prevention				
FSC108	Fundamentals of Fire Prevention		Fundamentals of fire prevention. Includes techniques, procedures, regulations, and enforcement. Also includes discussion of hazards in ordinary and special occupancies. Field trips and lectures from industry also included	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC109	Emergency Response Team for Industry		Common industrial hazards related to chemicals, gases, fire, energy sources, and spills. Emergency response procedures to control and conclude hazardous incidents	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 2.6 2.6
FSC110	Wildland Firefighter		Basic-level course for individuals with little or no experience in the wildland environment. Preparation for performing as a beginning-level wildland firefighter with an organized fire department engine or hand crew. Satisfies minimum standards for certification testing set forth by the National Wildland Coordinating Group (NWCG).	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
FSC111	Emergency Vehicle Driver Operator		Emergency vehicle operators training including the problems facing operators; the personal qualities of emergency vehicle operator candidates; legal responsibilities of operators; and physical forces involved in driving an emergency vehicle. Includes hands-on training in an emergency response vehicle	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
FSC112PS	Public Safety Emergency Telecommunications		In-depth coverage of established techniques and procedures for handling routine and emergency public safety	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			telephone calls and radio (contact) communications. Nationally recognized procedures for processing 9-1-1 emergency calls, field unit safety, injury scenarios, and demonstrating positive public relations. Fundamental skills and responsibilities for fire, emergency medical, and law enforcement complaint report processing as well as federal laws regarding proper processing, retention, and dissemination of security information. Definitions of terms unique to fire suppression, emergency medical, and law enforcement situations common within the public safety sector.				
FSC113	Introduction to Fire Suppression		Introduction to the characteristics and behavior of fire, fire hazard properties of ordinary materials, extinguishing agents, firefighter safety, fire suppression organization and equipment, and basic fire fighting tactics.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 1.0 1.0
FSC114	Hazardous Materials First on the Scene/Awareness Level		Designed to assist first responders involved in potential hazardous materials incident. Provides an overview of capabilities and limitations of first responders in the recognition and detection of hazardous materials, safety considerations, and pre-emergency planning	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
FSC115	Community Emergency Response Team (CERT): Level I	AJS115	Basic skills, including instruction in teamwork and disaster simulations, needed to help oneself, family, and neighbors in	Prerequisites: None.		Occ	LEC 1.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the event of a community disaster in accordance with the Federal Emergency Management Agency (FEMA) guidelines.				
FSC117	Fire Apparatus		Principles of care, maintenance and operation of fire apparatus and pumps. Includes pump construction and accessories, pumping techniques, power development, and transmission. Driving, troubleshooting and producing effective fire streams	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC118	Fire Hydraulics		Review of basic mathematics. Hydraulic laws and formulas as applied to the fire service. Application of formulas and mental calculations to hydraulic problems, water supply variables, and discharge requirements for pumpers	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC119	Introduction Fire Service Ethics		Ethical issues, standards, and philosophical consideration of moral problems encountered in fire service. Ethical responsibility of fire service personnel and those they serve	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC125	Hazardous Materials Emergency Scene Management		Emphasis on detection and identification of dangers associated with the release of hazardous materials. Step-by-step guide to the management of response resources for the purpose of mitigating a hazardous materials incident	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
FSC126	Refresher Training for Hazardous Materials First Responder Operational		Review of fundamentals of containment, prevention, and knowledge of basic hazard and risk assessment techniques.	Prerequisites: A grade of C or better in FSC105.		Occ	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Topics include protective clothing, containing and controlling specific hazards, vapor suppression, and cooling of tanks. Meets the requirements of Department of Labor Part III; Occupational Safety and Health Act 29; Code of Federal Regulations Part 1910; Hazardous Wast Operational and Emergency Response; Final Rule March 6, 1989 governing Refresher Training.				
FSC127	Codes/Regulations and Contingency Planning for Hazardous Materials Response		Multifaceted approach to the management of a hazardous materials accident at private public sector facility. Includes planning requirements and considerations, fixed-site pre-plan preparation. Overview of federal statutes and national codes used to establish safety, health, and environmental standards for chemical utilization. Highlights Occupational Safety and Health Administration, Department of Transportation, Environmental Protection Agency, Uniform Building Code, Uniform Fire Code, and National Fire Protection Association regulations. Application of laws, regulations, and rules by agencies enforcing legal mandates in chemical compliance, both public and private	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
FSC128	Hazardous Materials Air Monitoring/Breathing Protection		Fundamentals of emergency air monitoring and respiratory protection used in response to hazardous materials releases. Theory and	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			practical application. Includes use of monitoring instruments in conjunction with respiratory protection systems for tactical and risk analysis work; respiratory protection devices and their physiological effects; all state and federal laws pertaining to respiratory protection				
FSC129	Physical Properties of Hazardous Materials		Practical application of physical properties of hazardous materials for risk and hazard analysis. Working knowledge of chemicals, exposure, and physical property nomenclature for the selection of proper decontamination methods and proper personal protective clothing and equipment	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
FSC130	Fitness for Firefighters/CPAT		Skills and abilities required for entry level position in the fire service including physical ability, and stamina. Opportunity to take the accredited International Association of Fire Fighters (IAFF) Candidate Physical Ability Test (CPAT) at the end of the course at a IAFF licensed agency.	Prerequisites: None.	FSC130 is offered as credit (P) or no credit (Z) basis. Standard grading available according to procedures outlined in catalog.	Occ	L+L 1.0 1.5 1.5
FSC131	Introduction to Urban Technical Rescue		Practical application of safe rescue practices for urban technical rescue. Includes ropes and rope systems, trench rescue, confined-space rescue, swiftwater rescue, and rescue from collapsed structures	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
FSC132	Personal Protective Equipment for Emergency Spill Control at Hazardous Materials Incidents		Fundamentals of personal protective equipment and practical application of theoretical information. Includes the design, components, interface, use, application, and	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			materials of chemical protective clothing; thermal limitations of chemical protective clothing in flammable and toxic atmospheres; physiological and psychological effects of wearing these types of garments. Fundamentals of basic emergency spill control, identification, response teams, safety, and decontamination				
FSC134	Fitness and Conditioning for Firefighters		Overview of all aspects of fitness for current and prospective firefighters. Includes physical and mental aspects of performance for optimal achievement on fire department agility tests and fire fighting tasks; individual conditioning strategies, nutritional guidelines, protective clothing concepts, and basic exercise principles. Pre-employment, evaluation, and lifelong fitness and conditioning.	Prerequisites: None.		Occ	L+L 3.0 4.6 4.6
FSC136	Women Firefighter Preparation		Designed for women firefighter candidates. Includes firefighting techniques and procedure, physical/mental conditioning, health concerns, occupational opportunities, and mentorship programs.	Prerequisites: A grade of C or better in FSC134 or Corequisites: FSC134 or permission of Instructor.		Occ	L+L 2.0 2.87 2.87
FSC139	Emergency Response to Terrorism	AJS139	Fundamentals of emergency response to suspected terrorist events. Historical perspective of terrorist activities and methods by which responders can identify and protect themselves and the public from these threats. Coordination of responding agencies.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC146	Disaster Recovery Operations	AJS146	Specialized knowledge and skills for the emergency manager in	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			developing programs and activities associated with disaster recovery assistance and mitigation actions that reduce losses from future disasters.				
FSC147	Emergency Preparedness	AJS147	Emergency preparedness related to natural and manmade disasters. Planning concepts and the planning process; awareness and education programs and strategies for the general community as well as business and industries.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC148	Fundamentals of Emergency Management	AJS148	Emergency management systems including career opportunities, function, tasks and responsibilities of the emergency management program manager, role of the emergency manager in mitigation, preparedness, response, and recovery. Past civil defense and current emergency management systems since evolution from World War II.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC149	Hazard Mitigation	AJS149	Knowledge and skills required to develop programs to reduce losses from future disasters, emergencies, and other extreme events caused by natural and man-made hazards.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC152	Engine Company Officer		Overview of all aspects of engine company operations including the activities and responsibilities performed by the captain as well as mechanisms for developing a personal supervisory style. Designed for the aspiring company officer or anyone having the opportunity for the role of a company officer	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FSC153	Minimum Company Standards for Fire Fighters		Comprehensive review of Standard Operating Procedures as they relate to fire ground skills. Emphasis placed on hands on activities allowing participants to practice necessary skills to safely operate on the fire ground and vehicle accident scenes	Successful completion of the Fire Operations Academy and current Candidate Physical Ability Test (CPAT).		Occ	L+L 2.0 4.0 4.0
FSC158	Advanced Education for Probationary Firefighter		Preparation to advance skill level of the probationary firefighter. Includes preparation for ambulance operations, driver's training and safety issues, fire ground operations, and fire department organizational structure. Hands-on application of skills and concepts	Prerequisites: Permission of Instructor.		Occ	LEC 3.0 3.0 3.0
FSC159	Ladder Operations		Comprehensive training for members of fire department ladder companies. Emphasis on safety, progressive skills, and equipment review.	Prerequisites: Permission of Instructor.		Occ	L+L 1.0 1.0 1.0
FSC160	Advanced Driver Training Instructor Certification		Comprehensive instructor certification course based on information and resources from the National Fire Protection Association Standard for Driver Apparatus; the Arizona Department of Transportation Standards, Commercial Drivers License Requirements; General Motors Advanced Drivers Training; National Highway Traffic and Safety Administration; and the Occupational Health and Safety Administration. Covers compensation for inertia, defensive driving skills, and collision avoidance techniques. Differences between driving passenger	Prerequisites: Permission of Instructor.		Occ	LEC 1.2 1.2 1.2

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			vehicles top-heavy or high-profile vehicles. Focuses on competency of instructor in ability to teach principles and demonstrate skills necessary to operate fire department apparatus				
FSC161	Advanced Driver Training Instructor Re-Certification		Comprehensive recertification for all previously certified Advanced Driver Training (ADT) instructors. Focuses on safety, review of driving skills, comprehension of course dialogue, and instructor presentation skills based on standards established by National Fire Protection Association (1002-Standard for Driver Apparatus); Arizona Department of Transportation, Commercial Drivers License (CDL); General Motors Advanced Driver Training; National Highway Traffic and Safety Administration; and the Occupational Health and Safety Administration	Prerequisites: Permission of Instructor.		Occ	LEC 3.0 3.0 3.0
FSC162	Utility Truck Operation		Comprehensive review of skills, responsibilities, apparatus familiarization, mechanical and technical aptitudes, and fire department standard operating procedures specific to safe and effective operation of utility trucks. Focuses on practical application of classroom instruction to insure competency of engineers in performing all utility truck/scene support operator responsibilities	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0
FSC163	Respiratory Protection Refresher		Use of respiratory protection, including regulations, hazard recognition, limitations of	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			respirators, maintenance requirements, and importance of annual fit testing. Complies with 29CFR (Code of Federal Regulations) 1910.134 Occupational Safety and Health Administration (OSHA) Regulation for Respiratory Protection refresher training				
FSC167	Fire Captain Academy		Roles and responsibilities of a company officer within the fire department system with emphasis on practical application and preparation for the role of company officer in a move-up or out-of-class status. Emphasis on customer service, safety, crew development, discipline, community involvement, and specific engine and ladder company officer functions. Includes fire and emergency medical simulations.	Prerequisites: Permission of Instructor.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 3.0 3.0
FSC174	Functions of Command		Basic functions of command in the fire service. Includes brief history and future trends of incident command. Analysis of recent local, national, and international tactical and strategic concerns. Utilizes a Command Training Center to provide real-time, computer- and prop-enhanced simulations.	Prerequisites: Permission of Instructor. Corequisites: FSC102.		Occ	L+L 2.0 3.0 3.0
FSC175	Fireground Survival		On-deck procedures, focusing on implementation, tasks and responsibilities, logistics, and their impact on tactics, strategy, and scene safety. Assignment of Rapid Intervention Company (RIC) responsibilities to the on-	Prerequisites: Permission of Instructor.		Occ	L+L 0.5 0.7 0.7

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			deck company. Fireground survival skills				
FSC200	Fire Service Instructor- Level I		Designed to prepare students for Level I Training Officer as defined by the National Fire Protection Association (NFPA) 1041 standards. Includes methods of delivering instructional materials, preparation of lesson plans, instructional aids and evaluation instruments; techniques and strategies for organizing the learning environment and management of recordkeeping are also included.	Prerequisites: None.	FSC200 is intended for Firefighters seeking to become Instructors or Training Officers.	Occ	LEC 3.0 3.0 3.0
FSC201	Fire Service Instructor- Level II		Designed to prepare students for Level II Training Officer as defined by the National Fire Protection Association (NFPA) 1041 standards. Continued knowledge and skills in methods of delivering instructional materials, preparation of lesson plans, instructional aids and evaluation instruments; techniques and strategies for organizing the learning environment and management of recordkeeping are also included.	Prerequisites: A grade of C or better in FSC200 or permission of Program Director or Instructor.	FSC201 is intended for Firefighters seeking to become Instructors or Training Officers.	Occ	LEC 3.0 3.0 3.0
FSC202	Supervisory Training for Firefighters		Administrative methods applied to the fire service, departmental organization, and personnel management. Includes fire alarm signaling systems, fire service planning, and relationships with other city departments	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC204	Firefighting Tactics and Strategy		Methods of coordinating personnel, equipment, and apparatus on the fireground. Practical methods of controlling	Prerequisites: A grade of C or better in FSC113 or permission of		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and extinguishing structural and other types of fires. Includes simulation exercises.	Instructor or current employment as a firefighter and/or Firefighter I and II Certification and/or related experience as determined by the Program Director.			
FSC205	Command Strategies for Major Emergencies		Effective methods of managing major emergency incidents including multiple alarm structural fires, high rise fires, major brush fires, complex hazardous materials incidents and multi-casualty medical incidents. Includes incidents that require the commitment of resources based on a transitional situation and/or managing the effective interaction between numerous agencies to achieve control	Prerequisites: A grade of C or better in FSC204.		Occ	LEC 3.0 3.0 3.0
FSC208	Firefighter Safety and Building Construction		Actions necessary to provide for the safety of firefighters operating on the fireground. Effects that fire and heat may have on various types of building construction resulting in the loss of structural integrity. Includes signs and symptoms of structural damage.	Prerequisites: A grade of C or better in FSC113 or permission of Instructor or current employment as a firefighter and/or Firefighter I and II Certification and/or related experience as determined by the		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Program Director.			
FSC209	Fire Investigation I		Methods of determining point of fire origin, path of fire travel, and fire cause. Includes recognizing and preserving evidence; interviewing witnesses; arson laws and types of arson fires; and court testimony, reports, and records.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC209LL	Fire Investigation I Lab		Practical application of fire investigation techniques. Includes use of the scientific method to investigate various types of fires as well as fire patterns, explosions and evidence documentation. Also covers scene management and examination procedures in addition to report writing and spoliation concerns.	Prerequisites: A grade of C or better in FSC209.		Occ	LAB 1.0 2.0 2.0
FSC210	Fire Investigation II		Focus on practical skills for fire investigators. Emphasis on hands-on application with practice examining and recording the fire/arson scene. Includes class room and field exercises on each section.	Prerequisites: A grade of C or better in FSC209 or permission of Instructor.		Occ	L+L 3.0 3.0 3.0
FSC211	Fire Investigation III		Focus on case building for fire investigators. Emphasis on hands-on application, practice examining and recording the fire/arson scene. Includes field exercises with arson task force to investigate a crime scene.	Prerequisites: A grade of C or better in FSC210 or permission of Instructor.		Occ	L+L 3.0 3.0 3.0
FSC212	Fire Investigation IV		Skills and information for those responsible for fire investigation. Focus on courtroom and testimony. Includes continuing arson task force team assignment.	Prerequisites: A grade of C or better in FSC211 or permission of Instructor.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FSC213	Hazard Categorization (HAZ CAT)		Fundamentals of basic chemical identification for field application. Includes demonstration of sampling techniques, safety, key charts, test descriptions and use, and flow charts for tactical application at hazardous materials incidents	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
FSC214	Human Resource Management in Fire Service		Management of fire service personnel functions. Includes selection procedures, employee discipline, performance ratings, elements of supervision. Labor relations and related personnel responsibilities	Prerequisites: A grade of C or better in FSC202 or four years in the fire service.		Occ	LEC 3.0 3.0 3.0
FSC215	Customer Service in the Public Sector		Examines the personal and practical skills needed to enhance customer service in the public sector with an emphasis on application, basic management requirements, and training	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC216	Fundamentals of Flammable Hazardous Materials		Fundamentals of chemistry used in fire service, chemistry of flammable hazardous materials, containers used to store and transport flammable hazardous materials, and equipment and materials used in controlling emergencies involving flammables. Also includes tactics for hazardous materials emergencies, and laws at federal, state, and local levels pertaining to the use, storage, and transportation of hazardous materials and hazardous wastes.	Prerequisites: A grade of C or better in FSC105.		Occ	LEC 3.0 3.0 3.0
FSC217	Dangerous and Explosive Hazardous Materials		The chemistry of reactive and unstable hazardous materials, the toxicology of dangerous chemicals, and the	Prerequisites: A grade of C or better in FSC216.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			measures taken to protect responders, the community, and the environment of chemical accidents. Also includes an introduction to field sampling of unknown substances.				
FSC220	Fire Officer		Administrative methods applied to the fire service, departmental organization, and personnel management. Includes Incident Management System, fire service planning, and relationships with other agency departments.	Prerequisites: Full time Certified Fire Fighter I & II, or Fire Instructor I, or permission of Instructor.		Occ	L+L 5.0 6.0 6.0
FSC221	Ladder Company Officer		Overview of all aspects of ladder company operations including activities, expectations, and responsibilities required of the ladder captain. Designed for the company officer who aspires to the role of ladder company officer	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
FSC224	Incident Command Systems		Methods for managing emergency incidents including command, control and coordination of response to all types of incidents, including hazardous materials, natural hazards, fire and multiple causality incidents. Emphasis on stabilization and protecting life, property, and environment	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
FSC225	Hazard Zone Command		Provides the knowledge, skills and abilities for incident commanders to manage local, National Incident Management System (NIMS) Type 4 and 5 incidents. Prepares Fire Service Company and Command Officers to standardize local incident operations across their organization. The Hazard Zone Command course includes theory	Prerequisites: Firefighter 1 and 2 certification and (a minimum of 5 years of fire service field experience or permission of Instructor).	80 hours of online and in person coursework is minimally required for this course.	Occ	L+L 5.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and simulation-based case studies. After successful completion of the course, the student will receive Blue Card certification for a period of three (3) years.				
FSC226	Incident Safety Officer		Comprehensive review of the critical factors that threaten the safety and well being of operating firefighting crews with an emphasis on the role an Incident Safety Officer has in recognizing, minimizing and mitigating threats. Focus on the Principles and types of construction, building dating, Smoke and Fire size-up, unique building types and standard company operations within Incident Management System providing the framework for effective Incident Safety Officer actions and overall impact on fire ground safety. Safety of Fire companies operating on every other type of incident in which a Command Structure is established, focus on the scope of an Incident Safety Officer	Rank of Fire Captain or Chief Officer.		Occ	LEC 3.0 3.0 3.0
FSC230	Fire Officer Leadership II		Management techniques which develop leadership and leadership effectiveness. Written and verbal communication skills, fire service excellence goals, counseling and problem solving methods. Role-playing and case studies emphasized throughout	Prerequisites: Permission of Instructor.		Occ	LEC 3.0 3.0 3.0
FSC231	Battalion Chief Academy		Examine the many roles and responsibilities required of a chief officer. Manage emergency incidents, explore personal and professional growth,	Prerequisites: None. FSC202 and FSC204 are suggested but not required.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			view department issues more globally, manage personnel more effectively, manage conflict resolution for positive outcomes, and define leadership.				
FSC234	Fitness and Wellness for Firefighter Candidates		Focus on fitness and wellness for firefighter candidates.	Prerequisites: Permission of Instructor.		Occ	L+L 3.0 4.6 4.6
FSC238	Vehicular Extrication and Patient Stabilization	EMT238	Participative course designed for the Emergency Medical Technicians (EMT). Incorporates new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene management, including size-up, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures to selected victim scenarios	Basic EMT certification current enrollment in an EMT-Basic program nurse with emergency department experience or law enforcement personnel or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
FSC240	Incident Command Officer		Preparation of Incident Command officers in handling local community's emergency situations	Chief Officer or permission of Instructor.		Occ	L+L 3.0 3.0 3.0
FSC258	Victimology and Crisis Management in Public Safety	AJS/EMT 258	Victimology, the criminal justice system, techniques of crisis intervention and management, and the importance of a multicultural and global perspective. Includes violent crimes, sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, developing effective coping skills of victims	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and responders, appropriate community resources, and the cultural responsiveness of the justice system.				
FSC259	Advanced Ladder Operations		Comprehensive training for members of fire department ladder companies. Emphasis on application of techniques, incorporating safety, progressive skills, and equipment review.	Prerequisites: Permission of Instructor.		Occ	L+L 8.0 8.5 8.5
FSC260	Technical Rope Rescue (RR) 1, 2, 3		Concepts, techniques, and skills needed to support technical rope rescue. Meets Arizona Fire Marshal Office requirements for RR1, RR2, RR3 and National Fire Protection Association (NFPA) 1670 Operational Rope Rescue	Prerequisites: A grade of C or better in FSC131 or permission of Instructor.		Occ	L+L 3.0 3.6 3.6
FSC261	National Fire Protection Agency Rope Technician		Advanced anchor construction, use of elevated anchor points on difficult edges, horizontal rope systems, and study of force multipliers commonly experienced during high angle rope rescue. Meets the certification requirements for the NFPA (National Fire Protection Agency) 1670 for Operational Rope Rescue and NFPA 1006 for Technical Rescue Rope Technician.	Prerequisites: A grade of C or better in FSC260 or (the Office of the Arizona State Fire Marshalxxs Ropes 1 2 and 3 class) or permission of Instructor.		Occ	L+L 3.0 3.6 3.6
FSC271	Aircraft Rescue Fire Fighter (ARFF)-Basic		Basic level course for aircraft rescue firefighters. Preparation for performing standard aircraft rescue and firefighting procedures, including roles and responsibilities, basic airport configuration and design, aircraft types, hazardous cargo, safety precautions and use of materials.	Prerequisites: Permission of Program Director.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
FSC272	Aircraft Rescue Fire Fighter (ARFF) - Advanced		Advanced level course for certification of aircraft rescue firefighters. Integrating, performing and evaluation of standard firefighting skills for airport configuration and design, aircraft types, hazardous cargo, safety procedures and materials used.	Prerequisites: A grade of C or better in FSC271.		Occ	L+L 3.0 4.0 4.0
FSC273	Aircraft Rescue Fire Fighter (ARFF)-Driver		Driver training course for aircraft rescue firefighters. Preparation for performing standard driving procedures for aircraft rescue and firefighting. Includes but not limited to proper handling of apparatus, equipment and tools used in aircraft rescues and communication with tower and other response units.	Prerequisites: A grade of C or better in (FSC272 or current employment as an airport firefighter) and permission of Instructor.	Current employment is in accordance with the national Fire Protection Association (NFA) Standard 1003.	Occ	L+L 2.0 2.5 2.5
FSC274	Aircraft Rescue Fire Fighter (ARFF) - Incident Command		Incident command certification of aircraft rescue firefighter performing and evaluating standard firefighting skills for airport firefighters. Includes but not limited to aircraft types, hazardous cargo, and safety procedures and materials.	Prerequisites: A grade of C or better in FSC273 or permission of Program Director.		Occ	LEC 3.0 4.0 3.7
FSC275	Aircraft Rescue Fire Fighter (ARFF) Certification Renewal		Designed to provide recertification for the performance of standard aircraft rescue and firefighting procedures and skills for airport firefighters. Includes but not limited to airport configuration and design, aircraft types, hazardous cargo, safety procedures and materials used.	Prerequisites: A grade of C or better in (FSC272 or current employment as an airport firefighter) and permission of Instructor.	Current employment is in accordance with the National Fire Protection Association (NFA) Standard 1003.	Occ	L+L 3.0 4.0 4.0
FSC276	Terrorism Liaison	AJS276	Provides knowledge and skills required for the Terrorism Liaison Officer (TLO) role to coordinate and communicate with	Prerequisites: Permission of Program Director.	AJS/FSC276 is not open to the public.	Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			various fire, police, and military agencies in managing threat vulnerability and other emergency disasters.				
FSC277	Threat Vulnerability Assessment	AJS277	Provides a historical perspective of threats and the activities and methods used by first responders to identify and mitigate future threats. Introduces and examines threat vulnerability of critical infrastructure within jurisdictions. Provides assessment techniques for responding agencies.	Prerequisites: Permission of Program Director.	AJS/FSC277 is not open to the public.	Occ	L+L 1.0 1.0 1.0
FSC278	Hostile Intent and Intervention Training	AJS278	Provides knowledge and skills required to detect and anticipate terrorist activities as a member of a Hostile Intent and Intervention Team (HIIT).	Prerequisites: Permission of Program Director.	AJS/FSC278 is not open to the public.	Occ	L+L 2.0 2.0 2.0
FSC279	Field Intelligence Team Training	AJS279	Provides knowledge and skills required for situational awareness of suspicious activities and the deployment of first responders for mitigation and investigation for the Field Intelligence Team (FIT).	Prerequisites: Permission of Program Director.	AJS/FSC279 is not open to the public.	Occ	L+L 3.0 3.0 3.0
FSC280	Terrorism Hazmat First Responder Training	AJS280	Provides knowledge and skills to understand the chemistry of reactive and unstable hazardous materials, the toxicology of dangerous chemicals, and the measures taken to protect the safety of responders, the community, and the environment of chemical accidents. Also includes an introduction to field sampling of unknown substances for the Field Intelligence Team (FIT) and the Hostile Intent and Intervention Team (HIIT).	Prerequisites: Permission of Program Director.	AJS/FSC280 is not open to the public.	Occ	L+L 4.0 4.0 4.0
FSC282AA	Service-Learning Experience in Fire Science		Unpaid Service-Learning (SL) experience,	Prerequisites: Permission of Instructor.	FSC282AA may be repeated for	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			completed with approved community partner.		a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.		
FSC282AB	Service-Learning Experience in Fire Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	FSC282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0
FSC282AC	Service-Learning Experience in Fire Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	FSC282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 3.0 3.0 0.0
FSC290AA	Arson Investigation		Investigative techniques used in analyzing suspected arson scenes, motives, and collection of physical evidence	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
FSC296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
FSC296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
FSC296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
FSC296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
FSC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
FSC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE				
FSC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
FST175	Food Science Product Development I		A study of food production with hands-on experience in all aspects of developing, producing, and marketing food products for food science majors.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
FST263	Principles of Food Science		The study of scientific principles involved in the development, production, and evaluation of food.	Prerequisites: None.		Acad	L+L 4.0 4.0 4.0
FST264	Protein Science		The study of natural and synthetic proteins in food science with a focus on meat.	Prerequisites: A grade of C or better in FST263.		Acad	L+L 4.0 4.0 4.0
FST265	Microbiology of Foods		The study of microorganisms and their relationship to food development, production, processing, and preservation.	Prerequisites: A grade of C or better in (BIO156 or BIO156XT or BIO181 or BIO181XT or FST263) and (CHM130 or higher).		Acad	L+L 4.0 4.0 4.0
FST266	Fermentation in Food Science		A study of the biochemical principles and processes of fermentation in food science.	Prerequisites: A grade of C or better in (BIO156 or BIO156XT or BIO181 or BIO181XT or		Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				FST263) and (CHM230 or CHM230AA or CHM235 or CHM235AA).			
FST267	Analysis of Food		A study of biochemical analysis of foods used in product development, evaluation, and quality control.	Prerequisites: A grade of C or better in (BIO156 or BIO156XT or BIO181 or BIO181XT or FST263) and (CHM130 or higher).		Acad	L+L 4.0 4.0 4.0
FST275	Food Science Product Development II		Advanced study of food production and analysis of quality, safety, efficiency and cost through hands-on experience in developing, producing and marketing food products.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
FST298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
FST298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
FST298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
FYE101	Introduction to College, Career and Personal Success		Focus on student success through exploration of academic, career and life skills. Includes study of goal-setting/success strategies, academic mindset and financial literacy. Develop an education/career plan utilizing career assessments and other college resources.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
FYE103	Exploration of College, Career and Personal Success		Focus on student success through exploration of academic, career, and life skills. Includes study of goal-setting/success strategies, academic mindset, interpersonal skills, financial literacy, self-care strategies, diverse perspectives, and campus tools and resources. Develop an education/career plan utilizing career assessments and other college resources.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
GBS103	Principles of Banking		History, characteristics and significance of American banking system, includes types of accounts, banking services and the relationship of commercial banks to their depositors	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS109	Introduction to Esports Management		Introduction to Esports will introduce the business, economics, operations and marketing of the Esports industry. Historical and cultural implications will be examined from the early days of competitive video gaming, to today's billion dollar industry. Global awareness and diverse cultural viewpoints and trends will be studied as they relate to the Esports industry. This course will introduce students to the numerous business opportunities to work and grow in the dynamic Esports industry.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS110	Human Relations in Business and Industry		Exploration of fundamental theories and concepts of human relations in business and industry. Particular emphasis is placed on developing effective interpersonal relationships and leadership skills within an organization	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS120	Workplace Communication Skills		Reviews planning, organization, development, and evaluation of written and oral communication in business settings, including informative and persuasive messages.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
GBS126	Writing Resumes		Planning, organizing, and writing a professional resume. Focus on presentation skills including format and language	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
GBS131	Business Calculations		Review of basic arithmetic and application of mathematics to business problems, includes percentage, interest, discount, and markups	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS132	Personal and Family Financial Security		Principles and practices of personal and family financial planning, includes savings, budgeting, credit, buying versus renting, and general principles of consumerism.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS151	Introduction to Business		Characteristics and activities of current local, national, and international business. An overview of economics, marketing, management and finance	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS175	Professional Development		Examines personal qualities and professional skills needed to find a good job. Explores techniques required to build a successful career	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS205	Legal, Ethical, and Regulatory Issues in Business		Legal theories, ethical issues and regulatory climate affecting business policies and decisions.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS206	Business Law (UCC)		Legal and ethical aspects of contracts, sales, commercial paper, secured transactions, documents of title, letter of credit, bank deposits, and collections	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS207	Business Law (General Corporate)		Legal and ethical aspects of agency, partnerships, corporations, bankruptcy, antitrust, securities, and other regulations of business	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS211	Legal, Ethical and Regulatory Issues of the Internet Studies		Legal, ethical and regulatory issues of the Internet environment, including personal, commercial and business electronic	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			transactions in cyberspace.				
GBS220	Quantitative Methods in Business		Business applications of quantitative optimization methods in operations management decisions.	Prerequisites: A grade of C or better in (MAT150 or MAT151 or MAT152) or satisfactory score on the District math placement test.		Occ	LEC 3.0 3.0 3.0
GBS221	Business Statistics		Business applications of descriptive and inferential statistics, measurement of relationships, and statistical process management. Includes the use of spreadsheet software for business statistical analysis.	Prerequisites: A grade of C or better in GBS220 or MAT217 or MAT218.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS] Arizona Shared Unique Number SUN#: BUS 2201	Occ	LEC 3.0 3.0 3.0
GBS233	Business Communication		Internal and external business communications, including verbal and nonverbal techniques	Prerequisites: A grade of C or better in ENG101 or ENG107 with grade of C or better or permission of Department or Division.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L]	Occ	LEC 3.0 3.0 3.0
GBS261	Investments I		Evaluation of various investment forms including study of inflation, taxation, government securities, stocks and bonds, real estate and retirement plans. Securities industry knowledge and skills for individuals to prepare for careers in Financial Services. Includes capital markets, types of products and their risks, trading, customer accounts, prohibited	Prerequisites: None. Corequisites: Concurrent enrollment in GBS261LL recommended but not required.	Students interested in taking the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination should also enroll in the	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			activities, and regulatory agencies and their functions. Helps to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination required for entry-level positions in the security industry.		GBS261LL Securities Industry Essentials (SIE) Exam Prep course.		
GBS261LL	Securities Industry Essentials (SIE) Exam Prep		Helps to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination required for prospective securities industry professionals. Focuses on reviewing key concepts, practicing skills, and preparing to successfully demonstrate existing knowledge on the SIE certification exam. The course is designed to provide an overview of exam topics and study and test-taking strategies. It also will include structured study time, group discussions, and the use of practice exams to assess test readiness.	Prerequisites: None. Corequisites: Concurrent enrollment in GBS261 recommended but not required.	GBS261 is recommended for students who are not already employed in the financial services industry and need more in-depth content related to the SIE exam.	Occ	L+L 1.0 1.0 1.0
GBS270AA	Business Internship		General business work experience in a business or industry. Eighty hours of designated work per credit per semester. Maximum of 3 credits allowed	Prerequisites: Permission of Department or Division.		Occ	LAB 1.0 1.0 0.0
GBS270AB	Business Internship		General business work experience in a business or industry. Eighty hours of designated work per credit totaling 160 hours per semester. Maximum of 3 credits allowed	Prerequisites: Permission of Department or Division.		Occ	LAB 2.0 2.0 0.0
GBS270AC	Business Internship		General business work experience in a business or industry. Eighty hours of designated work per credit.	Prerequisites: Permission of Department or Division.	GBS270AC may be repeated for a total of six (6) credits.	Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
GBS282AA	Volunteerism General Business: Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: A grade of C or better in GBS151 and permission of Instructor.	GBS282AA may be repeated for a total of six (6) GBS282 credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0
GBS294	Consumer Credit		Consumer lending by financial institutions	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GBS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
GBS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and	Prerequisites: Completion of at least twelve (12)		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
GBS296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to students major or career interest or with permission of Instructor.			
GBS296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
GBS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
GBS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
GBS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
GCU102	Introduction to Human Geography		Systematic study of human use of the earth. Spatial organization of economic, social,	Prerequisites: None.	Course Attribute(s): General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			political, and perceptual environments		: Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]		
GCU113	United States and Arizona Social Studies	POS113	Overview of government, history, and geography of the United States and Arizona. Includes the relationship of government to the United States economic system as well as the influences and developments that have shaped U.S. and Arizona history. Also covers geographical systems, regions, and study techniques.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
GCU120	Arizona's Water Issues		History and development of Arizona's arid-land water use: sources, distribution, methods of use, floods, droughts, water law and environmental concerns	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
GCU121	World Geography I: Eastern Hemisphere		Description and analysis of spatial variations in culture, social, economic, and political phenomena in major world regions. Emphasis on the major cultural realms of Europe, North Africa, and Asia.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
GCU122	World Geography II: Western Hemisphere		Description and analysis of variations in social, economic, and political phenomena in major world regions. Emphasis on Sub-Saharan Africa, Latin America, and Anglo America	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Education Designation : Social and Behavioral Sciences - [SB]		
GCU141	Introduction to Economic Geography		Production, distribution and consumption of various types of commodities of the world and relationships to the activities of man	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
GCU194	Special Topics in Cultural Geography		Detailed study of specific regions, topics, or current issues in cultural geography. Topics may include origins, diffusion, and division of cultural areas. Examines cultural patterns and spatial organization which may include population, religion, economic, social and political characteristics. Studies interrelationships between humans and the physical environment (i.e. environmental ecosystems, physical processes and natural resources).	Prerequisites: None.	GCU194 may use field trips as a mandatory component.	Acad	LEC 3.0 3.0 3.0
GCU221	Arizona Geography		The historical to modern development of Arizona. The interplay between the physical, cultural and economic factors affecting Arizona today	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H] General Education	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Designation : Social and Behavioral Sciences - [SB]		
GCU223	Geography of Latin America		Spatial overview of the physical, historical, social, and economic characteristics of South, Middle, and Caribbean America.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
GCU282AA	Service-Learning Experience in Cultural Geography		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	GCU282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
GCU282AB	Service-Learning Experience in Cultural Geography		Unpaid Service-Learning (SL) experience completed with approved community partner.	Prerequisites: Permission of Instructor.	GCU282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
GCU282AC	Service-Learning Experience in Cultural Geography		Unpaid Service-Learning field experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	GCU282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
GCU298AA	Special Projects	GPH298A A	Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of Program		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
GCU298AB	Special Projects	GPH298A B	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
GCU298AC	Special Projects	GPH298A C	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and individualized learning to be combined	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to maximize student development. COMMON COMPETENCY COURSE				
GER085AA	Speedy German I		Basic grammar and vocabulary of the German language to practice listening and speaking skills	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
GER085AB	Speedy German II		Intermediate vocabulary, German syntax and inflections to further develop conversational skills in German.	Prerequisites: A grade of C or better in GER085AA. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0
GER085AC	Speedy German III		Continued development of German speaking and listening skills to express opinions and thoughts on a variety of subjects.	Prerequisites: A grade of C or better in GER085AB. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0
GER101	Elementary German I		Basic grammar, pronunciation and vocabulary of the German language. Includes the study of German culture, practice of listening, speaking, reading and writing skills.	Prerequisites: None.	Field trips may be required. Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: GER1101	Acad	LEC 4.0 4.0 4.0
GER101AA	Elementary German I		Basic grammar, pronunciation and vocabulary of the German language. Includes the study of German culture, practice of listening, speaking, reading and writing skills.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Acad	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
GER102	Elementary German II		Continued study of grammar and vocabulary of the German language along with the study of German culture. Emphasis on German language skills.	Prerequisites: A grade of C or better in GER101 or GER101AA or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: GER1102	Acad	LEC 4.0 4.0 4.0
GER102AA	Elementary German II		Continued study of grammar and vocabulary of the German language along with the study of German culture. Emphasis on German language skills.	Prerequisites: A grade of C or better in GER101 or GER101AA or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Acad	L+L 4.0 5.0 5.0
GER115	Beginning German Conversation I		Conversational German. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in German. Designed for students seeking speaking and listening abilities with little emphasis on grammar	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
GER116	Beginning German Conversation II		Continued development of speaking and listening skills for effective communication in German.	Prerequisites: A grade of C or better in GER115 or one year of high school German or permission of Department or Division. Completion of prerequisites within the last		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				three years is required.			
GER201	Intermediate German I		Review of essential grammar of the German language and study of the German culture. Continued practice and development of reading, writing, and speaking skills.	Prerequisites: A grade of C or better in GER102 or GER102AA or two years of high school German or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: GER2201	Acad	LEC 4.0 4.0 4.0
GER202	Intermediate German II		Continued development of German language skills and continued study of the German culture.	Prerequisites: A grade of C or better in GER201 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: GER2202	Acad	LEC 4.0 4.0 4.0
GER226	Intermediate German Conversation II		Further development of skills in conversational German.	Three semesters of high school German or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
GER296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				<p>be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.</p>			
GER296W B	Cooperative Education		<p>Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.</p>	<p>Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with</p>		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of the Instructor.			
GER296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
GER296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
GER298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
GER298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
GER298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
GIS205	Geographic Information Technologies		Introduces modern geographic information technologies, including cartography, Geographic Information System (GIS), remote sensing, global positioning systems, and statistical analyses.	Prerequisites: None.	Knowledge of computer navigation and software application is recommend ed.	Acad	LEC 3.0 3.0 3.0
GIS211	Geographic Information Science I		Introduces students to digital map creation including vector and raster data, map elements, and design, symbology, and the geo database using Environmental Systems Research Institute (ESRI) desktop and online mapping environments.	Prerequisites: A grade of C or better in GIS205 or permission of Instructor.		Acad	L+L 4.0 4.0 4.0
GIS220	Introduction to ArcPy Scripting		Students will learn how to automate geoprocessing tasks and apply scripting fundamentals using the ArcGIS Python-based scripting language ArcPy. The course emphasizes problem solving using geoprocessing analysis, identifying system integration and data management tasks,	Prerequisites: A grade of C or better in GIS211.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			determining programming tools and order based upon workflow analysis.				
GIS222	Geographic Information Science II		Geographic Information Science (GIS) as a basis for microcomputer spatial analysis and synthesis. Includes digitizing, database organization, spatial retrieval and graphics.	Prerequisites: A grade of C or better in GIS211 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
GIS223	Introduction to Digital Image Processing		Uses and application of remote sensing and imagery in Geographic Information Systems (GIS). Uses and application of Global Positioning Systems to GIS and remote sensing.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
GLG101	Introduction to Geology I - Physical Lecture		Introduction to Earth's materials, surface and internal geologic processes, plate tectonics and geologic time.	Prerequisites: None.	Students may receive credit for only one of the following: GLG101 or GLG101IN. Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] in combination with: GLG103 Arizona Shared Unique Number SUN#: GLG 1101	Acad	LEC 3.0 3.0 3.0
GLG101IN	Introduction to Geology I - Physical		Introduction to Earth's materials, surface and internal geologic processes, plate tectonics and geologic time. Includes practical experience in rock and mineral identification, topographic maps, and	Prerequisites: None.	Enrollment in both a GLG101IN lecture section and a GLG101IN laboratory section is required.	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			applied problems in geology.		Students may receive credit for only one of the following: GLG101 and GLG103 or GLG101IN. Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN# GLG1101		
GLG102	Introduction to Geology II - Historical Lecture		The origin and history of the Earth, its dynamic geographic and climatic changes. Evolution and sequence of life recorded in the fossil record; tectonic evolution of major continents through time.	Prerequisites: None.	Students may receive credit for only one of the following: GLG102 or GLG102IN. Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Natural Sciences (General) - [SG] in combination with: GLG104	Acad	LEC 3.0 3.0 3.0
GLG102IN	Introduction to Geology II - Historical		The origin and history of the Earth, its dynamic geographic and climatic changes. Evolution and sequence of life	Prerequisites: None.	Enrollment in both a GLG102IN lecture section and	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			recorded in the fossil record; tectonic evolution of major continents through time.		a GLG102IN laboratory section is required. Students may receive credit for only one of the following: GLG102 and GLG104 or GLG102IN. Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Natural Sciences (General) - [SG]		
GLG103	Introduction to Geology I - Physical Lab		Includes practical experience in rock and mineral identification, topographic maps, and applied problems in geology.	Prerequisites: None.	GLG103 may accompany GLG101. Students may receive credit for only one of the following: GLG103 or GLG101IN. Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] in combination with: GLG103 Arizona Shared Unique	Acad	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Number SUN#: GLG 1101		
GLG104	Introduction to Geology II - Historical Lab		The study of minerals, rocks, fossils, geologic maps and structures.	Prerequisites: None.	GLG104 may accompany GLG102. Students may receive credit for only one of the following: GLG104 or GLG102IN. Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Natural Sciences (General) - [SG] in combination with: GLG102	Acad	LAB 1.0 3.0 3.0
GLG105	Introduction to Planetary Science		A survey of solar system objects and their geologic evolution, surfaces, interiors, and atmospheres, and the methods used to study them; weekly laboratory for data analysis and experiments; possible weekend field trip	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (General) - [SG]	Acad	L+L 4.0 6.0 6.0
GLG106	Life in the Universe	AST106	Introduction to the search for life in the universe for the non-science major. Earth's location in space and time, nature of life, light and the spectrum, origin and history of the universe, origin of life on Earth and the possibility of life on other planets.	Prerequisites: A grade of C or better in MAT090 or MAT091 or MAT092 or completion of higher level mathematics course, or satisfactory score on	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				placement exam.			
GLG107	Life in the Universe Laboratory	AST107	Astronomy, Biology, and Planetary Science laboratory.	Prerequisites: A grade of C or better in AST/GLG106 and permission of Instructor or Department or Division.	AST/GLG107 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCC students should enroll in AST/GLG106 only.	Acad	LAB 1.0 3.0 3.0
GLG110	Geological Disasters and the Environment		Acquaints students with the use and importance of geological studies as they apply to the interactions between people and the earth. Includes geological processes and hazards such as earthquakes, volcanoes, floods and landslides. Examines environmental impact and use of mineral and energy resources.	Prerequisites: None.	Students may receive credit for only one of the following: GLG110 or GLG110IN. Course Attribute(s): General Education Designation : General Education Designation : Global Awareness - [G] General Education Designation : Natural Sciences (Quantitative) - [SQ] in combination with GLG111	Acad	LEC 3.0 3.0 3.0
GLG110IN	Geological Disasters and the Environment		Acquaints students with the use and importance of geological studies as they apply to the interactions between	Prerequisites: None	Enrollment in both a GLG110IN lecture section and	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			people and the Earth. Includes geological processes and hazards such as earthquakes, volcanoes, floods and landslides. Examines environmental impact and use of mineral and energy resources.		a GLG110IN laboratory section is required. Students may receive credit for only one of the following: GLG110 and GLG111 or GLG110IN. Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Natural Sciences (Quantitative) - [SQ]		
GLG111	Geological Disasters and the Environment Lab		Introduction to geological processes and concepts. Application of basic geologic knowledge to evaluate, interpret and propose solutions for a variety of current and past geology-related environmental disasters and hazards.	Prerequisites: None.	May accompany GLG110. Students may receive credit for only one of the following: GLG111 or GLG110IN. Course Attribute(s): General Education Designation : Global Awareness - [G] in combination with GLG110 General Education Designation : Natural Sciences	Acad	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					(Quantitative) - [SQ] in combination with GLG110		
GLG121	Geology of the Grand Canyon		Introduction to the physiography and geology of the Grand Canyon. Includes a hiking field trip to the Grand Canyon.	Prerequisites: None. GLG103 suggested but not required.		Acad	L+L 1.0 2.0 2.0
GLG140	Introduction to Oceanography		Investigates the marine environment in terms of basic scientific concepts. Emphasizes the impact of ocean pollutants, climate fluctuations, and resources from the sea	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
GLG140IN	Introduction to Oceanography		Introduces students to the physical, chemical, and geological conditions that regulate global ocean phenomena. Topics covered include history of oceanography, physical and chemical properties of ocean water, air-sea interactions, current, wave, and tidal phenomena, origins of the oceans, geologic processes and features, biological influences, and environmental issues. Laboratory exercises are included to provide experimental learning opportunities.	Prerequisites: None.	Enrollment in both a GLG140IN lecture section and a GLG140IN laboratory section is required. May include one or more field trips.	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
GLG229AB	Field Studies for Educators		Field trips to selected geological areas in Arizona in order to collect and/or observe geological phenomena. Designed for pre-college teachers.	Prerequisites: None.		Acad	LAB 2.0 10.0 2.0
GLG229AC	Field Studies for Educators		Field trips to selected geological areas in Arizona in order to collect and/or observe geological phenomena. Designed for pre-college teachers.	Prerequisites: None.		Acad	LAB 3.0 15.0 3.0
GLG230AA	Field Geology of the Southwest		Field trips to selected areas in the Southwest,	Prerequisites: None.	GLG230AA may be	Acad	LAB 1.0 5.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			such as Arizona, Utah, California, and Sonora to observe and interpret various geological features and phenomena.	GLG103 suggested but not required.	repeated for a total of four (4) credit hours.		
GLG230AB	Field Geology of the Southwest		Field trips to selected areas in the Southwest, such as Arizona, Utah, California, and Sonora to observe and interpret various geological features and phenomena.	Prerequisites: None. GLG103 suggested but not required.	GLG230AB may be repeated for a total of eight (8) credit hours.	Acad	LAB 2.0 10.0 2.0
GLG230AC	Field Geology of the Southwest		Field trips to selected areas in the Southwest, such as Arizona, Utah, California, and Sonora to observe and interpret various geological features and phenomena.	Prerequisites: None. GLG103 suggested but not required.	GLG230AC may be repeated for a total of twelve (12) credit hours.	Acad	LAB 3.0 15.0 3.0
GLG231AA	Special Topics in Geology		Exploration of important topics in geology. Specific topic varies.	Prerequisites: None.	GLG231AA may be repeated for a total of two (2) credit hours.	Acad	LEC 0.5 0.5 0.5
GLG231AB	Special Topics in Geology		Exploration of important topics in geology. Specific topic varies.	Prerequisites: None.	GLG231AB may be repeated for a total of four (4) credit hours.	Acad	LEC 1.0 1.0 1.0
GLG231AC	Special Topics in Geology		Exploration of important topics in geology. Specific topic varies.	Prerequisites: None.	GLG231AC may be repeated for a total of eight (8) credit hours.	Acad	LEC 2.0 2.0 2.0
GLG231AD	Special Topics in Geology		Exploration of important topics in geology. Specific topic varies.	Prerequisites: None.	GLG231AD may be repeated for a total of twelve (12) credit hours.	Acad	LEC 3.0 3.0 3.0
GLG280	Geology of Arizona Lecture		Acquaints students with the physical and historical geology of Arizona, including the origin of present-day land forms and	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			outstanding modern geologic features and processes now in operation				
GLG281	Geology of Arizona Lab		May accompany GLG280. Examples of specific geologic processes and local areas. May require field trips	Prerequisites: None.		Acad	LAB 1.0 3.0 3.0
GLG282AA	Volunteerism for Geology: A Service Learning Experience		Service-learning field experience within human service organizations, government offices, public schools, or hospitals.	Prerequisites: Permission of Instructor.	GLG282AA may be repeated for a total of six (6) GLG282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to college catalog.	Acad	LAB 1.0 1.0 0.0
GLG296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to student's major or career interest or with permission of the Instructor.			
GLG296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
GLG296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
GLG296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
GLG298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
GLG298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
GLG298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
GPH111	Introduction to Physical Geography Lecture		Earth's physical processes and impacts on human environments via the atmosphere, biosphere, lithosphere and hydrosphere. Topics include severe weather, climate change, biomes and ecosystems, landform processes; mountain building and erosion by rivers, glaciers, waves and wind.	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] in combination with GPH112.	Acad	LEC 3.0 3.0 3.0
GPH112	Introduction to Physical Geography Lab		Earth's physical processes and impacts on the human environment via the atmosphere, biosphere, lithosphere and hydrosphere. Practical experiences include earth-sun relationships, weather, climate, biomes, landform processes; mountain building and erosion by rivers, glaciers, waves and wind, topographic maps.	Prerequisites: A grade of C or better in GPH111 or Corequisites: GPH111.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] in combination with GPH111.	Acad	LAB 1.0 3.0 3.0
GPH113	Introduction to Physical Geography		Earth's physical processes and impacts on human environments via the atmosphere, biosphere, lithosphere and hydrosphere. Topics and practical experiences include severe weather, climate change, biomes and ecosystems, landform processes; mountain building and erosion by rivers, glaciers, waves and wind, topographic maps.	Prerequisites: None.	General Education Value: GPH111 (3) and GPH112 , Natural Science - Quantitative (SQ), Natural Science - Quantitative (SQ)	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
GPH194	Special Topics in Physical Geography		Detailed study of specific regions, topics, or current issues in	Prerequisites: None.	GPH194 may use field trips as	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			physical geography. Emphasis on relationships within and between the atmosphere, lithosphere, hydrosphere, biosphere, and how humans relate to their environment. Topics may include environmental ecosystems, physical processes (i.e., weather, climate, geomorphology, oceanography), natural resources and the impacts of human population (i.e., pollution, politics, religion, economic activities).		a mandatory component.		
GPH210	Society and Environment		Principles of physical geography relating to environmental problems pertinent to contemporary society. Pollution, maladjusted land use, resource exploitation	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Acad	LEC 3.0 3.0 3.0
GPH211	Landform Processes		Geographic characteristics of landforms and earth surface processes emphasizing erosion, transportation, deposition and implications for human management of the environment.	Prerequisites: None.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
GPH212	Introduction to Meteorology I		Atmospheric processes and elements. General and local circulation, heat exchange and atmospheric moisture	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] in combination with: GPH214	Acad	LEC 3.0 3.0 3.0
GPH213	Climate and Weather		Study of atmospheric phenomena over periods of time measured in months, years or longer. Includes average weather conditions, infrequent and unusual	Prerequisites: None.	Course Attribute(s): General Education Designation : Natural Sciences	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			types of weather, and the influence of weather on the cultural and human landscape.		(General) - [SG] in combination with: GPH215		
GPH214	Introduction to Meteorology Laboratory I		Basic meteorological and climatological measurements	Prerequisites: None. Corequisites: GPH212.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] in combination with: GPH212	Acad	LAB 1.0 3.0 3.0
GPH215	Climate and Weather Laboratory		A mathematical, statistical, and spatial analysis of climatological phenomena.	Prerequisites: None. Corequisites: GPH213.	General Education Designation : Natural Sciences (General) - [SG] in combination with: GPH213	Acad	LAB 1.0 3.0 3.0
GPH267	Extreme Weather and Climate		Emphasis on interaction of physical and cultural geography in potentially hazardous weather and climate processes. Exploration of hazard risk analysis.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
GPH282AA	Service-Learning Experience in Physical Geography		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	GPH282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
GPH282AB	Service-Learning Experience in Physical Geography		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	GPH282AB may be repeated for a total of six (6) credit hours. Standard	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					grading available according to procedures outlined in catalog.		
GPH282AC	Service-Learning Experience in Physical Geography		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	GPH282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
GPH298AA	Special Projects	GCU298A A	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
GPH298AB	Special Projects	GCU298A B	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
GPH298AC	Special Projects	GCU298A C	Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
GRK101	Elementary Classical Greek I		Introduction to the basic grammar and vocabulary of Ancient Greek. Includes introductory study of Ancient Greek culture. Practice reading and translating Ancient Greek as well as basic translation of English to Ancient Greek.	Prerequisites: None.		Acad	LEC 4.0 4.0 4.0
GRK102	Elementary Classical Greek II		Continued study of the grammar and vocabulary of Ancient Greek and Ancient Greek culture. Emphasis on reading and translating Ancient Greek to English, culminating in the reading of unadapted ancient texts.	Prerequisites: A grade of C or better in GRK101 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0
GRK296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish	Prerequisites: Completion of at least twelve (12) college		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			an outcome related to the career objectives of the students.	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
GRK296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				major or career interest or with permission of the Instructor.			
GRK296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
GRK296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				(students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
GRK298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
GRK298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to maximize student development. COMMON COMPETENCY COURSE				
GRK298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
GST201	Game Studies		Introduces concepts, tools, and topics necessary to studying and understanding games, whether analog or digital, as closed systems for definition, analysis, design, development, play, critique, and revision. Surveys games from around the world and introduces concepts, tools, and topics necessary to studying and understanding them, whether analog or digital, as closed systems for definition, analysis, design, development, play, critique, and revision.	Prerequisites: A grade of C or better in (RDG100 or RDG100LL) or (RDG100AA and RDG100AB and RDG100AC) or RDG111 or RDG112 or RDG113 or eligibility for ENG101 as indicated by appropriate writing assessment test score.		Acad	LEC 3.0 3.0 3.0
GST202	Games, Culture and Aesthetics		Considers games as artifacts and expressions of our basic consciousness, humanity, and potential. Explores through the lens of world cultures such concepts as values, power relations,	Prerequisites: A grade of C or better in (RDG100 or RDG100LL) or (RDG100AA and RDG100AB	Course Attribute(s): General Education Designation : Global Awareness - [G] General	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			gender roles, arts, aesthetics, and desire. Compares games across cultural, temporal, geographic, and linguistic divides, for the purpose of examining and appreciating the experiences, contributions, and values of diverse populations, as conveyed through the global phenomenon of games.	and RDG100AC) or RDG111 or RDG112 or RDG113 or eligibility for ENG101 as indicated by appropriate writing assessment test score.	Education Designation : Humanities, Arts and Design - [HU]		
GST245	Games for Teaching and Learning		Survey of past and present games for teaching and learning from multiple cultures and continents. Exploration of the potential for games to help us: face challenges; solve problems; enhance our quality of life; and render our experience of the world in a more meaningful way. Applies theories of learning to determine best practices in game design, development, and production. Demonstrates how to align instructional content with appropriate game-based mechanics and thinking. Culminates in the prototype of a game for teaching and learning.	Prerequisites: A grade of C or better in (ENG101 or ENG107) and (RDG100 or RDG100LL or RDG111 or RDG112 or RDG113) or satisfactory score on District reading placement exam or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
GTC104	Manufacturing Processes		Introduces students to manufacturing processes used in conversion of raw materials into useful products. Presents the basic manufacturing processes in logical groups, based on similarities of purpose and applications	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0
GTC106	Industrial Safety	MIT106 OSH106	Safety, health management, and accident prevention in industrial work environment. Role of	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of safety and health hazards accident prevention, management responsibilities, and OSHA 10 certification.				
GTC106AA	Industrial Safety		Safety, health management and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of safety and health hazards accident prevention, and management's responsibilities.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
GTC107	Technical Mathematics I		Mathematical principles to include basic operations, significant digits, exponents, square roots and order of operations. Solve problems using arithmetic, signed numbers, percentages, fractions, exponents, and square root. Use of hand held calculator. Technology related problems	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GTC108	Technical Mathematics II		Fundamental algebraic operations. Problem solving involving metric measurement, gears, pulleys, simple mechanism problems. Areas and volume calculations of geometric figures. Essentials of	Prerequisites: A grade of C or better in GTC107 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			trigonometry for solving right and oblique triangles.				
GTC121	Construction Estimating I		Fundamentals of determining quantities of material, equipment and labor for given project. Includes procedures used in applying proper unit costs to these items	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GTC123	Construction Estimating II		Details of job estimates. Includes unit cost considerations and subcontracting. Emphasis on bid preparation	Prerequisites: A grade of C or better in GTC121 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
GTC127	Beginning Woodworking		Introduction to woodworking fundamentals and applications. Familiarization with the basic woodworking tools emphasizing the safe and proper use of woodworking hand tools and stationary and portable power tools. Class projects develop a working project plan, identify material needs, cost analysis, basic construction of the project, and basic finishing techniques	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
GTC128	Intermediate Woodworking		Further development and application of basic woodworking skills. Complex projects with emphasis on planning and calculating and buying needed materials. Introduction of joinery, complex fitting, more advanced finishing, and wood carving.	Prerequisites: A grade of C or better in GTC127 or previous woodworking experience.		Occ	L+L 3.0 4.0 4.0
GTC129	Manufacturing Welding		Technical theory, safety considerations, and application of shop and welding processes commonly used in manufacturing, including oxyacetylene welding, brazing, and cutting, SMAW (Elec ARC),	Prerequisites: None.		Occ	L+L 3.0 8.0 8.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			GMAW (MIG), GTAW (TIG) and plasma cutting				
GTC130	Furniture Construction I		Process of building a piece of furniture including calculating and buying needed material, using tools properly and safely (hand tools and machines), joinery, wood preparation and basic finishing techniques.	Prerequisites: A grade of C or better in GTC128 or previous woodworking experience and permission of Instructor.		Occ	L+L 3.0 6.0 6.0
GTC131	Furniture Construction II		Continuation of GTC130 including special set-ups on machines, special joints, adhesives, special finishes, panel doors, panel drawers, metal drawer guides and plastic laminates	Prerequisites: A grade of C or better in GTC130 or permission of instructor.		Occ	L+L 3.0 6.0 6.0
GTC132	Wood Finishing		Introduction to the materials, processes, and sequences used in applying a variety of finishes to various wood types. Includes abrasives, stains, fillers, surface coats, tools and equipment, and basic refinishing techniques.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
GTC144	Introduction to Cabinetmaking		Techniques and projects to produce complex cabinet projects. Includes project planning, working from plans, material cost analysis, and advanced finishing techniques.	Prerequisites: A grade of C or better in GTC130 and permission of Instructor.		Occ	L+L 3.0 5.0 5.0
GTC145	Advanced Cabinetmaking		Further exploration of advanced woodworking techniques on complex projects.	Prerequisites: A grade of C or better in GTC144 and permission of instructor.		Occ	L+L 3.0 5.0 5.0
GTC181	Introduction to Fluid Power		Develops an understanding of the fundamental laws and principles of fluids together with consideration of such fluid devices as valves, cylinders, pumps, sizes of lines, and simple hookups. Includes both hydraulics and pneumatics	Prerequisites: A grade of C or better in ELE101 or equivalent.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
GTC182	Building Construction Methods I		Basics of building construction from job site selection through exterior finish of the shell. Focuses mainly on residential construction for the consumer. Includes blueprints, estimating materials and labor, work scheduling, job layout, foundations, framing, and exterior finish. Energy conservation, safety, and building codes discussed throughout the course	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
GTC185	Electro-Mechanical Devices		Concepts, principles, maintenance, and troubleshooting of mechanical and electro-mechanical devices; mechanical alignment of shafts, pillowblocks, gears, and couplers on mechanical breadboard; transmission devices including lead screws, linkages, worm and worm wheels, gear trains, speed reducers, chain drives, and belt drives; principles of lubrication; operation of dc(direct current), ac(alternating current), and stepping motors; application of tachometers, stepping motors, linear actuators, relays, solenoids, switches, contactors, starters, and fuses; selection and specification of components from manufacturer's catalogs.	Prerequisites: A grade of C or better in ELE101 or GTC108 or (MAT103AA and MAT103AB) or permission of Instructor.		Occ	L+L 4.0 6.0 6.0
GTC208	Statistical Process Control		Study of statistical process control concepts and methods. Extraction and application of specific parameters from data retrieved from a process	Prerequisites: A grade of C or better in ELE101 or GTC108 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
GTC209	Automated Manufacturing	MIT209	Evolution of automation in manufacturing from	Prerequisites: A grade of C		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			fixed (hard) automation to Computer Integrated Manufacturing (CIM) is presented with numerical control (NC) ; computer-aided design/computer-aided manufacturing (CAD/CAM); automated material handling; automation communication protocol. Manufacturing management strategies include statistical process control (SPC); material requirements planning (MRP); manufacturing resource planning (MRPII); and just-in-time (JIT). Hands-on experience with programmable logic controllers (PLC) and robotics included	or better in ELT131 or ELE131 or GTC/MET206 or equivalent.			
GTC216	Properties of Materials		Study of manufacturing properties of materials, the behavior of materials under load, stress and strain and torsion and qualities of materials other than strength	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
GTC223	Advanced Machine Tools		Advanced machining practices; emphasis on application of machines and tool theory.	Prerequisites: A grade of C or better in GTC102 or MET231.		Occ	L+L 3.0 6.0 6.0
GTC236	CAD/CAM Computer Numerical Control (CNC) Programming		Programming of Computer Numerical Control (CNC) machine tools such as CNC Milling Machines, and Turning Centers. Utilizing Computer Aided Drafting and Computer Aided Manufacturing (CAD/CAM) for design and generation of part geometry. Verification of tool path using CAM graphics. Generate program media using a CAM post processor	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
GTC272	Automated Control Systems (PLC Applications)		The programmable logic controller as the control unit for the application of sensors, switches, and	Prerequisites: A grade of C or better in GTC/MIT209		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			transducers. Motors, stepper motors, and other prime movers are controlled. Includes both on/off and analog devices.	or permission of Instructor.			
GTC273	Industrial Automation Controls and System Integration.		A study in application and implementation of industrial control systems including machine building and system integration	Prerequisites: A grade of C or better in GTC272.		Occ	L+L 3.0 6.0 6.0
GTC276	Solids Programming		Parametric modeling, CNC part production, model to CAM system integration, and solid model part representation. Applied CAD/CAM in the role of Computer Integrated Technology (CIM)	Prerequisites: A grade of C or better in GTC266.		Occ	L+L 3.0 6.0 6.0
GTC296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
GTC296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
GTC296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites:		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
GTC296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
GTC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
GTC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
GTC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HBR101	Elementary Biblical Hebrew I		Introduction to the basic alphabet, grammar, pronunciation and vocabulary of classical Hebrew. Listening, speaking, reading, and writing skills	Prerequisites: None.		Acad	LEC 4.0 4.0 4.0
HBR102	Elementary Biblical Hebrew II		Continued study of grammar and vocabulary of classical Hebrew with emphasis on oral reading and interpretation skills.	Prerequisites: A grade of C or better in HBR101 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0
HBR201	Intermediate Biblical Hebrew I		Advanced study of grammar and vocabulary of classical Hebrew with emphasis on oral reading and interpretation skills.	Prerequisites: A grade of C or better in HBR102 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0
HCC102	Introduction to Safe Patient Handling and Mobility		Introduction to the history and principles of safe patient handling and mobility (SPHM). Introduction to patient mobility bedside assessment. Use of safe patient handling equipment and principles for in-bed movement, transfers to and from stretchers and chairs, exercise, and safe ambulation. Use of equipment for home care. Review and application of body mechanics.	Prerequisites: None.		Occ	L+L 0.5 0.5 0.5
HCC109	CPR for Health Care Provider	RES109	Current American Heart Association standards for one and two rescuer cardiopulmonary resuscitation (CPR) and	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			obstructed airway procedures on the adult, infant, and pediatric victim. Use of automatic, external defibrillation and resuscitation equipment.				
HCC109AA	CPR for Healthcare Providers Practice and Testing		Knowledge and skills refreshment for renewal of a current American Heart Association (AHA) Healthcare Provider (HCP) card or completion of eLearning practice and testing. Including one and two rescuer Cardiopulmonary Resuscitation (CPR) and obstructed airway procedures on the adult, infant, and pediatric victim. Automated external defibrillation (AED) application and oxygenation/ventilation management.	Prerequisites: Valid Healthcare Provider CPR card at time of course or Part 1 Completion Certificate from an AHA HCP eLearning online course.	Successful completion of the HCC109AA course content meets requirements for an American Heart Association (AHA) Healthcare Provider CPR renewal card.	Occ	LEC 0.25 0.25 0.25
HCC130	Fundamentals in Health Care Delivery		Overview of current and recent development of health care professions, including career and labor market information, health care delivery systems, third party payers, and facility ownership. Health organization structure, patient rights and quality care. Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Healthful living practices to include nutrition, stress management and exercise. Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Basic communication skills	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			which facilitate inter-professional teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies.				
HCC130AA	Health Care Today		Overview of current health care professions including career and labor market information. Health care delivery systems, third-party payers, and facility ownership. Health organization structure, patient rights and quality care.	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
HCC130AB	Workplace Behaviors in Health Care		Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities.	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
HCC130AC	Personal Wellness and Safety		Introduces healthful living practices for health care professionals to include nutrition, stress management and exercise. Includes Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities.	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
HCC130AD	Communication and Teamwork in Health Care Organizations		Emphasis on basic communication skills which facilitate teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies.	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HCC130AE	Legal Issues in Health Care		Basic legal terminology used in the health care setting. Legal concepts related to health care employment, medical documentation, and communication. Introduction to regulatory requirements in health care.	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
HCC130AF	Decision Making in the Health Care Setting		Principles and application of a decision making model. Description and application of ethics and process improvement and the relationship of both to the decision making model.	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
HCC145	Medical Terminology for Health Care Professionals		Medical terminology used in health care, with special care populations and in special services. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HCC145AA	Medical Terminology for Health Care Professionals I		Introduction to medical terms used in health care. Body systems approach to selected terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing selected terms using basic word parts. Selected medical abbreviations and symbols and term spelling.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
HCC145AB	Medical Terminology for Health Care Professionals II		Selected medical terms used in health care. Body systems approach to more detailed terms related to structures, functions, diseases, procedures, and diagnostic tests. Building	Prerequisites: A grade of C or better in HCC145AA.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and analyzing selected terms using standard word parts. Selected abbreviations and symbols and term spelling.				
HCC145AC	Medical Terminology for Health Care Professionals III		Medical terminology used with special care populations and in special services. Includes obstetric, pediatric, mental health, diagnostic imaging, oncology, and surgery terms. Use of special care populations and special services word parts and term spelling.	Prerequisites: A grade of C or better in HCC145AA and HCC145AB or HCC146.		Occ	LEC 1.0 1.0 1.0
HCC146	Common Medical Terminology for Health Care Professionals		Common medical terms used in health care. Body systems approach to common terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing common terms using word parts. Common medical abbreviations and symbols and term spelling.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
HCC164	Pharmacology for Allied Health		Chemical, generic, and trade names for drugs. Use of drug references. Pharmacological principles of drugs. Routes of drug administration. Federal and Arizona regulations. Classification of drugs. Abbreviations and symbols for drug measurement, administration, and prescription.	Prerequisites: A grade of C or better in HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF) or work experience or equivalent course education as evaluated by the Health Core Curriculum Coordinator.		Occ	LEC 0.5 0.5 0.5
HCC200	Basic Client Care for Allied Health		Safety procedures for the hospitalized client. Transfer, moving and positioning techniques.	Prerequisites: A grade of C or better in HCC130 or		Occ	LAB 0.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Client assessment methods and procedures. Protection of airways, drains, tubes, intravenous lines, and infusion pumps. Care of patient in traction and those with limitations to movement. Gloving, gowning, and sterile procedures.	(HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF) or equivalent.			
HCC204	Clinical Pathophysiology		Causes of disease and their impact on the human body. Common physiologic effects of disease on body systems. Roles of the multidisciplinary health care team in the diagnosis and treatment of disease. Cultural implications in prevention and treatment of disease.	Prerequisites: A grade of C or better in HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF) or equivalent and (BIO160 or BIO201).		Occ	LEC 3.0 3.0 3.0
HCC208	Health Care Leadership		Introduction to concepts and skills required of health care leaders. Discussion of leadership styles and conflict management. Application of motivation, delegation, and communication techniques to teamwork and leadership.	Prerequisites: A grade of C or better in HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF) or equivalent.		Occ	LEC 1.0 1.0 1.0
HCC218	Venous Access for Diagnostic Agents and Pharmaceuticals		Scope of practice and regulations governing venipuncture. Anatomy and physiology of the vascular system. Occupational Safety and Health Administration (OSHA) guidelines. Theory and practice of basic venipuncture for diagnostic agents and pharmaceuticals including equipment and procedures.	Prerequisites: HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE, and HCC130AF) or work experience or equivalent course education as evaluated by the Health Core Curriculum Coordinator		Occ	LAB 0.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or currently credentialed as a health care provider.			
HCC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
HCC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
HCC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
HCE113	Biomedical Electronics I		Electronic concepts, electrical connections including grounding, and electrical and patient safety	Prerequisites: Admission to the Electroneuro diagnostics Program or admission to Polysomnographic Technology Program.		Occ	LEC 2.0 2.0 2.0
HCE124	Donor Phlebotomy: Interviewing Techniques		Theory and practice of interviewing techniques in donor setting or health care environment.	Prerequisites: Acceptance into the Donor Phlebotomy program or permission of Program Director.	HCE124 is offered on a Credit (P) No credit (Z) basis. Standard grading available according to procedures outlined in college catalog.	Occ	L+L 2.0 10.0 0.0
HCE125	Practicum: Donor Interviewing Techniques		Application of interviewing techniques in donor setting or health care environment.	Prerequisites: A grade of C or better in (HCE124 and acceptance into the Donor Phlebotomy program) or permission of Program Director.	HCE125 is offered on a Credit (P) No credit (Z) basis. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 1.5 12.0 0.0
HCE126	Donor Phlebotomy: Basic Donor Collection		Theory and practice of basic donor phlebotomy including preparation; operation of equipment; and transportation,	Prerequisites: A grade of C or better in (HCE124 and acceptance into the	HCE126 is offered on a Credit (P) No credit (Z) basis. Standard	Occ	L+L 1.5 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			packing, and shipping procedures.	Donor Phlebotomy program) or permission of Program Director.	grading available according to procedures outlined in college catalog.		
HCE127	Practicum: Basic Donor Collection		Application of basic donor phlebotomy to obtain blood from donors in a community blood center setting including preparation, operation of equipment, and shipping and packaging procedures.	Prerequisites: A grade of C or better in (HCE126 and acceptance into the Donor Phlebotomy program) or permission of Program Director.	HCE127 is offered on a Credit (P) No credit (Z) basis. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 1.0 9.5 0.0
HCE271	Patient Care Technician Skills		Designed to prepare students for advanced patient care skills. Fundamentals in microorganisms and microbial control. Specimen collection, handling and testing, wound care, catheterization, and other designated procedures.	Prerequisites: Acceptance into the Patient Care Technician program or permission of Program Director.		Occ	L+L 1.0 1.75 1.75
HCE272	Practicum: Patient Care Technician		Designed to provide clinical experience in the medical facility. Emphasis on application of advanced patient-care skills. Includes incorporation of new skills into a work assignment and development of working relationships in an expanded role.	Prerequisites: (A grade of C or better in HCE109 and HCE261 and HCE271 and current CPR card for Health Care Provider proof of immunity and health declaration form signed by a licensed health care provider proof of negative results to a drug	CPR card must remain current throughout the HCE272 externship/ practicum.	Occ	LAB 1.0 4.75 4.75

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				screening and current fingerprinting clearance card) or permission of Program Director.			
HCE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
HCE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
HCE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
HCR100	Care of the Medically Complex Child		Course content will cover the orientation materials and fundamental concepts of foster parents caring for a medically complex child. The course will cover the common disorders and disease processes of children while providing basic knowledge to caregivers.	Prerequisites: None.	HCR100 may be repeated for credit. HCR100 is graded as a P/Z for one credit and can be taken as many times as the student wishes to achieve competency of the content.	Occ	LEC 1.0 1.0 1.0
HCR210	Clinical Health Care Ethics		An introduction to health care ethics with emphasis on analysis and ethical decision making at both the clinical and health policy levels for health care professionals. Theoretical foundation of bioethics reviewed within historical and contemporary contexts.	Prerequisites: A grade of C or better in ENG102 or ENG108 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
HCR220	Introduction to Nursing and Health Care Systems		Introduction to the social, political, and economic contexts of the nursing profession and health care systems in the United States.	Prerequisites: A grade of C or better in ENG102 or ENG108 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
HCR230	Culture and Health		Relation between cultures of diverse groups and health/illness. Emphasis	Prerequisites: None.	Course Attribute(s): General Education	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			on cross-cultural communication, including awareness of own cultural influences and indigenous and complementary healing practices.		Designation : Cultural Diversity - [C] General Education Designation : Global Awareness - [G]		
HCR240	Human Pathophysiology		Chemical, biological, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered.	Prerequisites: A grade of C or better in BIO202 or BIO205, or permission of Instructor.		Occ	LEC 4.0 4.0 4.0
HCR240AA	Human Pathophysiology I		Chemical, biologic, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered.	Prerequisites: A grade of C or better in BIO202 or BIO205 or permission of Instructor. Corequisites: HCR240AB or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
HCR240AB	Human Pathophysiology II		Chemical, biologic, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered.	Prerequisites: A grade of C or better in BIO202 or BIO205 or permission of Instructor. Corequisites: HCR240AA or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
HCR298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
HCR298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
HCR298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
HCS100	Fundamentals of Surgical Services	SGT100	Preparation for the Certified Registered Central Service Technician (CRCST) role. Central Service work flow, job responsibilities, growth	Prerequisites: Admission into the Hospital Central Service Technology		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and development in the field, anatomy and physiology, microbiology for Central Service regulations and standards, infection prevention and control, tools for cleaning, decontamination, cleaning and decontamination, disinfection, sterile packaging and storage, processing, sterilization, management of patient care equipment, tracking systems, quality assurance, safety, communication, sterile processing for ambulatory surgery and clinics.	or Surgical Technology program or permission of the Program Director.			
HCS101	Medical Terminology for Surgical Services	SGT101	Medical Terminology for patient care in surgery related areas. Use of word parts, term spelling, pronunciation and abbreviations related to all surgical specialties.	Prerequisites: None. Corequisites: HCS/SGT100		Occ	LEC 1.0 1.0 1.0
HCS102	Basic Surgical Instrumentation for Surgical Services	SGT102	History, construction and assembly of surgical instrumentation, categories, instrument set assembly, soft tissue foundation sets, general surgery instrumentation sets.	Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
HCS107	Equipment and Supplies for Surgical Services	SGT107	Introduction to the surgical equipment and supplies used in surgical services areas.	Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director.		Occ	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HCS110	Packaging and Sterilization		Instrument identification and care, assembling hospital prepared supplies, safety procedures, asepsis principles, monitoring procedures, sterilizer operations, portable equipment, sterile goods, rotation and storage inventory and distribution systems.	Prerequisites: A grade of C or better in (HCS101 or HCS101AA and HCS101AB) or Corequisites: (HCS101 or HCS101AA and HCS101AB) or permission of Instructor.		Occ	LEC 2.0 2.0 2.0 LAB 2.0 6.0 6.0
HCS130	Hospital Central Service Practicum		Supervised student application of central service theory and laboratory skills.	Prerequisites: A grade of C or better in HCS101 or (HCS101AA and HCS101AB) or permission of Instructor. Corequisites: HCS110.		Occ	LAB 5.0 30.0 0.0
HCS152	Advanced Surgical Instruments for Surgical Services	SGT152	Surgical specialty instrumentation care and assembly of instruments to include plastic, gynecologic, urologic, basic bone and joint, head and neck, neurosurgery, cardiovascular and thoracic, microscopic, endoscopes, stapling guns, and robotics procedures.	Prerequisites: A grade of C or better in HCS/SGT102		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
HCS154	Hospital Central Service Practicum		Direct supervision of students applying knowledge of Hospital Central Service to include communication, policy and procedures, aseptic and sterile technique, instrument trays and packs, sterilization equipment and documentation performed in the clinical environment.	Prerequisites: A grade of C or better in HCS/SGT100 or permission of Instructor. Corequisites: HCS/SGT152		Occ	LAB 7.0 36.0 0.0
HCS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and	Prerequisites: Completion of at least twelve (12)		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
HCS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to students major or career interest or with permission of Instructor.			
HCS296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
HCS296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
HCS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
HCS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
HCS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
HES100	Healthful Living		Health and wellness and their application to an optimal life style. Explores current topics of interest such as stress management, nutrition, fitness, and environmental health. Evaluates common risk factors associated with modern lifestyles.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
HES101	Personal Empowerment for Effective Living		Concepts and strategies for setting goals, decision making, communicating more effectively and problem solving to assist in behavior change strategies that lead to a healthier lifestyle. Identifies key health content areas, such as nutrition, physical activity and stress management and provides implementation	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			strategies for all areas, as well as, provides critical analysis of health information for consumers.				
HES105	Finding Health Information Online		Development of skills and competency in accessing, evaluating, and using online medical and health information resources.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
HES110	Introduction to Global Health Issues and Disease		Introduction to global health challenges and diseases from throughout the world. Focus is on biological and social aspects of major health issues, infectious disease, nutrition and environmental health. Includes review of groups that are at increased risk of poor health and familiarity with policies and programs designed to reduce health inequalities.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HES120	Principles of Physical Fitness and Wellness		Stress basic, lifetime health and skill-related components of fitness to achieve total wellness. Topics include nutrition, weight control, exercise and aging, cardiovascular and cancer risk reduction, stress management, prevention of sexually transmitted diseases, substance abuse control, and overall management of personal health and lifestyle habits to achieve the highest potential for well-being.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HES124	Environmental Wellness		Overview of critical global environmental challenges and the impacts of these issues to human health. Topics to be covered include issues such as transportation options, alternative energy, food	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			production, and air and water issues. Acquire skills, knowledge, and wisdom specific to sustainability which may be applied in many professions, occupations, social institutions, or organizations. At an individual level, learn specific ways to conserve energy, protect your health, and help create sustainable living practices.				
HES144	Strategies in Diabetes Management		Introduction to strategies in diabetes mellitus management and prevention for individuals diagnosed with diabetes and their caretakers. Includes a physical activity component.	Prerequisites: None.		Acad	L+L 3.0 5.0 5.0
HES201	Substance Abuse and Behavior		Principles and factual bases of drug use and abuse. Physiological and socio-psychological effects of drug use and law enforcement of drug abuse. Consultants used extensively to enrich course.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HES210	Cultural Aspects of Health and Illness		Examines how culture influences health and illness, health care practices, barriers to health care, interactions with health care professionals, and health disparities in the U.S.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Global Awareness - [G]	Acad	LEC 3.0 3.0 3.0
HES282AA	Service-Learning Experience in Health Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	HES282AA may be repeated for a total of six (6) credit hours. Standard grading available according	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					to procedures outlined in catalog.		
HES282AB	Service-Learning Experience in Health Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	HES282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
HES282AC	Service-Learning Experience in Health Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	HES282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
HES296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
HES296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
HES296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
HES296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				with permission of Instructor.			
HES298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
HES298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
HES298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
HFA101	Introduction to Insulation		Insulators' union history, significance and benefits. Successful and efficient labor relations. Insulation in relation to other construction trades. Safe and proper use of hand and power tools. Safe work habits, job site safety and first aid. Advanced first aid. Occupational Safety and Health Administration (OSHA) safety training and regulations.	Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
HFA102	Insulation Tools and Equipment: Use and Care		Identify tools and equipment used for installation of mechanical insulation, finishes, and accessories. Proper methods for use and care of various tools and equipment.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
HFA110	Math for Heat and Frost Technology		Fundamentals of the metric system. Fundamental operations with whole numbers, common fractions, decimals, percentages and ratios and proportions. Algebraic expressions, operations, powers and roots. Compute measurements of geometric figures.	Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
HFA115	Fundamental Insulation Skills: Piping I		Principles of insulation. Materials and methods of insulation. Insulating	Prerequisites: Registered Apprentice		Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			straight piping. Application of specific types of insulation. Insulation irregular surfaces. Seal and finish insulated pipe.	status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator.			
HFA150	Shop Fabrication: Layout and Pattern-making for Insulators I		Shop fabrication for the heat, frost and asbestos trades related to insulation. Draw, bisect, trisect, divide and construct geometric linear and curvilinear geometric constructions. Layout and design templates and patterns for tees, valves, flanges, and endcaps.	Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
HFA204	Scaffolding for Insulators		Occupational Safety and Health Association (OSHA) Scaffolding Standard Subpart L, scaffolding terms, safety, erection, and various types of scaffolding used. Aerial lift operation and safety.	Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
HFA215	Fundamental Insulation Skills: Piping II		Insulation for piping for cryogenic service. Insulation materials, coverings, finishes, and sealants for underground piping. Measure and cut rigid insulation using hand and table saws. Score block and board. Insulation of vertical and horizontal cylinders, finished heads and finished bodies using wired, bands, pins, stick clips, and washers. Insulate duct work in an	Prerequisites: A grade of C or better in HFA115.		Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			air-handling system using fibrous board, duct wrap and flexible sheet				
HFA250	Shop Fabrication: Layout and Pattern-making for Insulators II		Shop fabrication for the heat, frost and asbestos trades related to insulation. Advanced layout patterns for long and short radius elbows, cones, bevels, and tank heads. Specifications for selecting fittings and structures. Numbers and sizes of miters and gores	Prerequisites: A grade of C or better in HFA150.		Occ	LEC 5.0 5.0 5.0
HFA260	Blueprints and Firestopping		Contents of a set of plans. Major divisions in a set of drawings and title blocks. Bidding requirements, contract forms and conditions of contract. Architect's scale. Architectural, isometric, structural, plumbing, electrical, mechanical, and ductwork drawings. Symbols and abbreviations. Heating, Ventilating, and Air Conditioning system operations. Calculate materials for insulation. Firestopping systems, materials, and installation.	Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
HFA270	Supervision for Foremen		Foreman's role on the job site. Management and leadership using functional, adaptive and technical skills. Effective supervision and communication skills. Maslow's Motivational Theory. Short term motivators. Foreman responsibilities in area of performance and production. Traits and habits of effective leaders Leadership styles and team building. Labor/contractor cooperation	Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
HFA298AA	Special Projects		Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of Program		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
HFA298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
HFA298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to maximize student development. COMMON COMPETENCY COURSE				
HIM101	Introduction to Health Information Management		Provides detailed investigation of the history, development, and evolution of the health information management (HIM) profession. Topics include health care delivery systems, HIM career paths, HIM functions, and HIM in acute and alternative care settings.	Prerequisites: Acceptance into the (Medical Coding: Hospital-Based, or Medical Billing and Coding: Physician-Based, or Health Information Technology) program, and permission of Program Director.		Occ	LEC 3.0 4.0 3.7
HIM103	Long Term Care Delivery		Provides a survey of the Long-Term Care (LTC) continuum and the health information management function in long term care. Topics include long term care services provided in acute, ambulatory, and alternative care settings; LTC ethics and policy considerations; financial management; and special LTC populations.	Prerequisites: Acceptance into the Health Information Technology program and permission of Program Director.		Occ	LEC 4.0 4.0 4.0
HIM105	Computers in Healthcare and Health Record Systems		Introduction to computer applications in healthcare settings including electronic health records, health record content, structure, and origin of clinical information for various healthcare settings. A basic review of federal, state, and organizational documentation guidelines. Legal and ethical issues applicable to health information documentation and coding practices.	Prerequisites: (Acceptance into either the Medical Coding: Hospital-Based or the Medical Billing and Coding: Physician-Based program) and a grade of C or better in HCC130 or permission of Program Director.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HIM106	Legal and Ethical Aspects of Health Information Management		Overview of legal and ethical principles in health care and health information management. Topics include federal and state court systems; legal terminology; health care law; privacy, confidentiality, and security; release of information guidelines; ethics, bioethics, and ethical dilemmas.	Prerequisites: Acceptance into the Health Information Technology program and permission of Program Director.		Occ	LEC 3.0 3.0 3.0
HIM160	Health Data and Content		Introduction to data collection methods for health information systems. Overview of data structure, content, and standards, datasets and databases used in various health care settings, and registries and indexes.	Prerequisites: A grade of C or better in (BPC110 or CIS105) or permission of Program Director.		Occ	L+L 2.0 3.0 3.0
HIM180	Introduction to Medical Billing and Reimbursement		Overview of the medical billing profession, the revenue management process, and federal billing guidelines. Topics include Medicare, Medicaid, third party payers, management care models, and national insurance schemes.	Prerequisites: Permission of Program Director.		Occ	LEC 2.0 2.0 2.0
HIM181	Medical Claims Processing		Provides in depth analysis of the medical claims process in ambulatory care settings. Topics include electronic data interchange, claims management, confidentiality, data retention, and the claims review and appeals process.	A grade of C or better required in all Prerequisites. Prerequisites: (BPC110 and HIM180) or permission of Program Director. Prerequisites or Corequisites: HIM208 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
HIM182	Human Diseases for Coding in Long Term Care Settings		Overview of diseases commonly treated in long term, home health, and hospice settings.	Prerequisites: A grade of C or better in (BIO160 and		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Systems approach to causes, signs, symptoms, manifestations, diagnosis, and treatment of these diseases as required for accurate diagnostic coding.	HCC146) or permission of Program Director.			
HIM183	Diagnostic Coding in Long Term Care Settings		Introduction to the International Classification of Diseases (ICD) in long term care, home health and hospice settings. Topics include principles for diagnostic coding, standards of ethical coding, and diagnostic coding for reimbursement and coding compliance.	A grade of C or better required in all Prerequisites. Prerequisites: (BIO201 and HCC145) or permission of Program Director. Prerequisites or Corequisites: HIM200 or permission of Program Director.		Occ	L+L 4.0 6.0 6.0
HIM200	Human Pathophysiology and Pharmacology for Health Information Management (HIM) Professionals		Surveys common disease states and conditions that impact each of the major body systems and the reproductive process. Explores how the study of diseases, conditions, and treatments are connected to the health information management function. Topics include disease etiology; signs and symptoms of diseases and conditions; prognosis of diseases and conditions; and pharmacological concepts related to drug nomenclatures, sources of drugs, drug actions and dosage, and routes of drug administration.	Prerequisites: A grade of C or better in (HCC145 and BIO201) or permission Program Director.		Occ	LEC 3.0 4.0 3.7
HIM203	Healthcare Statistics and Data Analytics		Emphasizes the role of Health Information Management professionals in calculating, mining, and reporting healthcare statistics for data analytics, research,	Prerequisites: A grade of C or better in (HIM160 and MAT112) or permission of Program Director.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			quality assurance, financial, and other purposes. Topics include health statistics, morbidity, mortality, quality resource management, and research design.				
HIM205	Managing Health Information in Long Term Care Settings		Provides an in depth analysis of the health information management function in Long Term Care (LTC) settings. Topics include long term care health record systems; LTC regulatory compliance standards and guidelines; common technologies used in LTC; and statistical and data analytics in LTC.	Prerequisites: A grade of C or better in HIM103. Corequisites: BPC110 or permission of Program Director.		Occ	L+L 2.0 4.0 4.0
HIM207	Health Information Organizational Resource Management		Provides an overview of principles and practices essential to the efficient use of human, financial, and physical resources within health information management services. Topics include team building, planning, leading, organizing, directing, and controlling.	Prerequisites: A grade of C or better in (HIM101 and HIM106) or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
HIM208	ICD-CM Diagnostic Coding		Introduction to the International Classification of Diseases, Clinical Modification (ICD-CM) coding system. Topics include application of current ICD-CM guidelines and conventions for symptoms, signs, and abnormal clinical and laboratory findings, diseases, conditions, and external causes of morbidity in inpatient and outpatient settings.	A grade of C or better required in all Prerequisites. Prerequisites: (BIO202, HCC145, and HIM200) or permission of Program Director. Prerequisites or Corequisites: HIM180 or permission of Program Director.		Occ	L+L 2.0 4.0 4.0
HIM209	Procedural Coding Systems for Non-Coders		Surveys major procedural coding systems used in acute, ambulatory, and alternative care settings. Structure, content, and	A grade of C or better required in all Prerequisites. Prerequisites: HIM200 and		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			guidelines for the current International Classification of Diseases, Procedure Coding System (ICD-PCS), Current Procedural Terminology (CPT), and Healthcare Common Procedure Coding System (HCPCS) classification systems are explored. Topics include purpose and function of procedural coding; coding guidelines and conventions; and coding accuracy, totality, and sequencing.	BIO202. Prerequisites or Corequisites: HIM208 or permission of Program Director.			
HIM210	ICD-PCS Coding and ICD Applications		Introduction to the International Classification of Diseases, Procedure Coding System (ICD-PCS). Topics include application of the current ICD-PCS guidelines and conventions for procedures in inpatient settings and coding technologies.	A grade of C or better required in all Prerequisites. Prerequisites: BIO202 and HIM200. Prerequisites or Corequisites: HIM208 or permission of Program Director.		Occ	L+L 2.0 4.0 4.0
HIM211	Advanced Applications of Coding and Reimbursement		Provides foundation for advanced coding application including the use of references, source documents, and technology. Topics include Uniform Hospital Discharge Data Set; diagnostic-related groups; federal regulations for hospital-based settings; coding conventions for home health, long term care, rehabilitation, and other health care settings; and the use of codes for administrative, reimbursement, marketing, and regulatory purposes.	Prerequisites: A grade of C or better in (HIM208 and HIM210) or permission of Program Director.		Occ	L+L 4.0 6.0 6.0
HIM213	CPT and HCPCS Coding		Provides students with the foundation for using	Prerequisites: A grade of C		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the Current Procedural Terminology (CPT) and the Healthcare Common Procedure Coding System (HCPCS). Topics include coding guidelines, healthcare reimbursement, coding technologies, ethical coding, and compliance issues.	or better in BIO202, HCC145, HIM200, and HIM208.			
HIM215	Physician-Based Billing and Coding Seminar		Guidance in the development of physician-based billing and coding compliance programs.	A grade of C or better required in all Prerequisites. Prerequisites: HIM213 or permission of Program Director. Prerequisites or Corequisites: HIM211, current CPR at BLS Healthcare Provider Level through the American Heart Association, and permission of Program Director. Corequisites: HIM216 or permission of Program Director.		Occ	LEC 1.0 1.0 1.0
HIM216	Professional Practice in Physician-Based Billing and Coding		Practical application of billing and coding guidelines, conventions, and regulations under the supervision of a preceptor in an ambulatory care setting.	A grade of C or better required in all Prerequisites. Prerequisites: HIM213 or permission of Program Director. Prerequisites or Corequisites: HIM211, current CPR at BLS		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Healthcare Provider Level through the American Heart Association, and permission of Program Director. Corequisites: HIM215 or permission of Program Director.			
HIM219	Health Information Management Systems		Overview of the fundamental concepts, terminology, and structure of health information systems with an emphasis on applications used to manage electronic health information. Topics include health informatics; health information systems; electronic claims processing; electronic health records; electronic data interchange; and privacy, security, and confidentiality.	Prerequisites: A grade of C or better in HIM160, and (BPC110 or CIS105).		Occ	L+L 3.0 3.0 3.0
HIM221	Medical Coding Seminar		Guides students in the development of hospital-based coding compliance programs. Explores career development tools for medical billers and coders.	A grade of C or better required in all Prerequisites. Prerequisites: HIM213 or permission of Program Director. Prerequisites or Corequisites: HIM211 or permission of Program Director. Corequisites: HIM222 or permission of Program Director.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HIM222	Professional Practice in Medical Coding		Practical application of coding guidelines, conventions, and regulations under the supervision of a preceptor in an acute care setting.	A grade of C or better required in all Prerequisites. Prerequisites: HIM213 or permission of Program Director. Prerequisites or Corequisites: HIM211, current CPR at BLS Healthcare Provider Level through the American Heart Association, and permission of Program Director. Corequisites: HIM221 or permission of Program Director.		Occ	LAB 1.0 5.0 0.0
HIM225	Health Data Analytics		Provides students with integral tools and skills to analyze data commonly used in healthcare provision. Topics include data analysis, organization, and preparation tools; statistical techniques and variables; study design; benchmarking; and quality and performance improvement.	Prerequisites: A grade of C or better in (CIS114DE and HIM203).		Occ	L+L 3.0 4.0 4.0
HIM231	Health Data Management Seminar		Designed for students pursuing skills and knowledge in health data management. Topics include career development, team building, health data systems management and preparation for the professional certification exam.	Prerequisites: A grade of C or better in CIS114DE, HIM203, HIM208, and HIM209. Corequisites: HIM232.	HIM231 students must participate in the PPE (Professional Practice Experience) Orientation. Consult with Program	Occ	LEC 1.0 3.0 2.4

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Director or Instructor.		
HIM232	Health Data Management Professional Practice		Practical application of health data management knowledge and skills under the supervision of a preceptor in an acute, ambulatory, and/or alternative care setting.	Prerequisites: A grade of C or better in CIS114DE, HIM203, HIM208, HIM209 and current CPR certification at Basic Life Support (BLS) Healthcare Provider level through the American Heart Association. Corequisites: HIM231.	HIM232 students must participate in the PPE (Professional Practice Experience) Orientation. Consult with Program Director or Instructor.	Occ	LAB 1.0 5.0 0.0
HIM233	Revenue Cycle Management Seminar		Prepares students for the workforce in the field of revenue cycle management. Topics include strategies for team building, project collaboration, career development, and preparation and review for professional exam.	Prerequisites: A grade of C or better in (HIM208 and HIM210) or permission of Program Director. Corequisites: HIM234 and permission of Program Director.	Student must participate in the PPE (Professional Practice Experience) Orientation. Consult with Program Director or Instructor.	Occ	LEC 1.0 3.0 2.4
HIM234	Revenue Cycle Data Management Professional Practice		Practical application of revenue cycle management knowledge and skills under the supervision of a preceptor in an acute, ambulatory, and/or alternative care setting.	Prerequisites: A grade of C or better in (HIM208 and HIM210) or permission of Program Director, and CPR at BLS Healthcare Provider level through the American Heart Association. Corequisites: HIM233 and permission of Program Director.	Current CPR certification at BLS Healthcare Provider Level through the American Heart Association required prior to placement. Student must participate in the PPE (Professional Practice Experience)	Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Orientation. Consult with Program Director or Instructor.		
HIM298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
HIM298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
HIM298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
HIS100	History of Western Civilization to Middle Ages		Survey of the origin and development of Western civilization and its institutions from prehistory through the Ancient World and the Middle Ages.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS101	History of Western Civilization Middle Ages to 1789		Survey of the history of the Western world from the emergence of Western civilization in the Middle Ages to the start of the French Revolution.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS102	History of Western Civilization 1789 to Present		Survey of the history of the Western world from the French Revolution to the present.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS103	United States History to 1865		The political, economic, and social development of the United States from the Pre-Columbian period through the end of the Civil War (1865).	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Social and Behavioral Sciences - [SB] Arizona Shared	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Unique Number SUN# 1131		
HIS104	United States History 1865 to Present		The political, economic, and social development of United States from 1865 to the present time.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN# 1132	Acad	LEC 3.0 3.0 3.0
HIS105	Arizona History		The prehistoric and contemporary Native American experience, Spanish colonial times, the Mexican National period, the U.S. federal territorial years, and Arizona's political and economic development during the twentieth century.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
HIS106	Southwest History		Historical survey of the American Southwest including ecological/environment, political, economic, religious and social developments. Includes the unique role of the region in national and global events.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS107	Selected Issues in History		In-depth survey of selected issues in history. Includes examination of the relationships among events, ideas, and artifacts relevant to the selected topic.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Incorporates various historical lenses pertinent to the topic.				
HIS108	United States History 1945 to the Present		Survey of American history from 1945 to the present. Focuses on the political, social, economic and cultural history of the United States from the end of World War II to the present time. Includes domestic developments and foreign policy	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
HIS109	Mexican American History and Culture		Examination of the origins and development of Mexican American peoples. Including culture, history and contributions within the United States. Emphasis on educational, social, and economic conditions of Mexican Americans of the southwest.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS110	World History to 1500		A global survey of the economic, social, cultural, environmental, and political elements of world history to 1500.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS111	World History 1500 to the Present		A survey of the economic, social, cultural, and political elements of world history from 1500 to the present.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS113	History of Eastern Civilizations to 1850		An examination of the development of civilizations, religions and philosophies in the Near East, India, Far East, and Southeast Asia from ancient times	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to the mid-nineteenth century.				
HIS114	History of Eastern Civilizations 1850 to Present		Examination of characteristics and development of civilizations of Middle East, India, Far East, and Southeast Asia, from mid-nineteenth century to present	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
HIS140	American Indian History	AIS140	Survey of American Indian history with emphasis on the last 200 years. Focuses on cultural, economic, political and social continuity and changes. Topics include how federal policies impacted and were shaped by Indigenous peoples and how Indigenous individuals, communities, and nations have maintained cultural identity and sovereignty.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS145	History of Mexico		Survey of the major forces that shaped the history of Mexico and its culturally diverse communities from pre-Columbian times to the present. Also examines how these historical forces continue to shape	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			contemporary Mexican society and its place within the world.				
HIS170	American Indian History of the Southwest	AIS170	Covers history of American Indian Peoples of the Southwestern United States from pre-European contact era to the present. Includes historical events, the development and implementation of non-Indigenous policies and their impact on American Indian Peoples in these areas, and contemporary issues of importance.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS173	United States (U.S.) Military History 1603 to Present		Examines the history of the United States (U.S.) in war and peace from the colonial era to the present and the role of the military in the nation's development.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS175	Global History of World War II		Global survey of World War II (WWII), focusing on its origins, major military confrontations and events, conclusion, and historical significance.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS190	Environmental History		Historical overview of the interactions between humans and the natural environment in various time periods and regions around the world.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS201	History of Women in America		Introduction to women's history from the colonial period to the present. Explores changes and developments which have influenced the lives of women.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS203	African-American History to 1865		History and cultural heritage of African-Americans from their beginnings in Ancient Africa through the experience of chattel slavery in the Americas to their eventual emancipation and participation in the American Civil War.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					- [H] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Social and Behavioral Sciences - [SB]		
HIS204	African-American History 1865 to Present	AFR204	The multifaceted history and cultural heritage of African-American communities since the Civil War, presented within the broader context of U.S. history. This course explores the social, economic, political, and cultural history of African-American communities, including the historical and cultural impacts of slavery and discrimination, and the collective struggle for freedom, equality, and self-determination throughout U.S. history.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS209	The Chicana/o in 20th and 21st Century America		Analysis of the 20th and 21st century Chicano experience. Interdisciplinary approach to contemporary Mexican American history and culture in the borderlands.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS212	History of Religion		Survey of the historical contexts in which the major religions have emerged and evolved. Focuses on social and political events throughout history and their impact on religious beliefs and practices.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					: Humanities, Arts and Design - [HU]		
HIS240	History of Islamic Civilization from the 6th Century to 1800		Overview of the historical, economic, political, and cultural conditions that brought about the various transformations within the Arab/Islamic world; examination of the impact and interaction of the Islamic civilization with other peoples	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HIS241	Latin American Civilization in the Colonial Period		A survey of the political, economic, and social forces which molded Latin American civilization in the Colonial Period	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
HIS242	Latin American Civilization in the Post-Colonial Period		A survey of the political, economic, and social forces which molded Latin American civilization in the period of the development of Republics	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
HIS251	History of England to 1700		History of England to 1660. Analysis of the major political, cultural, social, and intellectual,	Prerequisites: None.	Course Attribute(s): General Education	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and social factors in English historical development from its earliest times till 1660.		Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]		
HIS252	History of England 1700 to Present		Analysis of the major political, cultural, social, and intellectual factors in English historical development from 1650 to present.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HIS273	US Experience in Vietnam 1945 - 1975		Survey of the US experience in Vietnam, 1945-1975, in view of political, economic, and social forces of the Cold War	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
HIS277	The Modern Middle East		Survey of the political, religious and economic development of the Middle East since 1500. Emphasis on the decline of the Moslem empire(s), the resurgence of contemporary Pan-Arabism, the Palestinian-Israeli question, jihadism, fundamentalist terrorism, the Taliban and Al Qaeda, and the	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : General Education	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			impact of oil production on the region and the rest of the world.		Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]		
HIS279	Creating and Telling Fact-Based Historical Stories	STO279	Creating and telling fact-based stories and stories from history.	Prerequisites: A grade of C or better in EDU/HUM/S TO292.	HIS/STO279 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
HIS282AA	Service-Learning Experience in History		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	HIS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
HIS282AB	Service-Learning Experience in History		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	HIS282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
HIS282AC	Service-Learning Experience in History		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	HIS282AC may be repeated for a total of six (6) credit hours. Standard grading available according to	Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					procedures outlined in catalog.		
HIS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
HIS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify)		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
HIS296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
HIS296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the students. COMMON COMPETENCY COURSE	grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
HIS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Acad	LAB 1.0 1.0 0.0
HIS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
HIS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
HLC130	Fundamentals in Health Care Delivery		Overview of current and recent development of health care professions, including career and labor market information, health care delivery systems, third party payers, and facility ownership. Health organization structure, patient rights and quality care. Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Healthful living practices to include nutrition, stress management and exercise. Occupational Safety and Health	Prerequisites: Admission to program, and successful completion of RDG100 or higher or appropriate reading placement into CRE101.	Students must earn a grade of C or better for all courses required within the program.	CLK	30

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Basic communication skills which facilitate inter-professional teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies.				
HLC145	Medical Terminology for Health Care Professionals		Medical terminology used in health care, with special care populations and in special services. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations, symbols, and term spelling.	Prerequisites: A grade of C or better is required in HLC130.		CLK	102
HMC100	Medical Billing and Coding Examination Review		This course reviews separate subjects that will be taught in preparation for the National Certified Professional Coder (CPC) Examination administered through the American Academy of Professional Coders (AAPC).	Prerequisites: A grade of C or better is required in HMC213 or permission of Instructor.		CLK	48
HMC105	Computers in Healthcare and Health Record Systems		Introduction to computer applications in healthcare settings including electronic health records, health record content, structure, and origin of clinical information for various healthcare settings. A basic review of federal, state, and organizational documentation	Prerequisites: A grade of C or better is required in HMC181 and HMC213.		CLK	36

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			guidelines. Legal and ethical issues applicable to health information documentation and coding practices.				
HMC180	Introduction to Medical Billing and Reimbursement		This course provides an overview of the medical billing profession and the revenue management process. Topics include Medicare, Medicaid, third-party payers, managed care models, and national insurance schemes.	Prerequisites: A grade of C or better is required in HMC200.		CLK	48
HMC181	Medical Claims Processing		This course provides an in-depth analysis of the medical claims process in ambulatory care settings. Topics include electronic data interchange, claims management, confidentiality, data retention, and the claims review and appeals process.	Prerequisites: A grade of C or better is required in HMC180.		CLK	54
HMC200	Human Pathophysiology and Pharmacology for HMC		This course surveys common disease states and conditions that impact each of the major body systems and the reproductive process. Topics include disease etiology; signs and symptoms of diseases and conditions; prognosis of diseases and conditions; and pharmacological concepts related to drug nomenclatures, sources of drugs, drug actions and dosage, and routes of drug administration.	Prerequisites: A grade of C or better is required in HLC130.		CLK	180
HMC208	ICD-CM Diagnostic Coding		This course introduces students to the International Classification of Diseases, Clinical Modification (ICD-CM) coding system. Topics include application of current ICD-CM guidelines and conventions for	Prerequisites: A grade of C or better is required in ISP110PC.		CLK	90

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			symptoms, signs, and abnormal clinical and laboratory findings, diseases, conditions, and external causes of morbidity in inpatient and outpatient settings.				
HMC213	CPT and HCPCS Coding		This course provides students with the foundation for using the Current Procedural Terminology (CPT) and the Healthcare Common Procedure Coding System (HCPCS) coding systems. Topics include coding guidelines, healthcare reimbursement, coding technologies, ethical coding, and compliance issues.	Prerequisites: A grade of C or better is required in HMC208.		CLK	216
HON190	The Honors Experience		Interdisciplinary studies of selected issues confronting the individual and society and overall human experience. Critical inquiry of specific themes from a wide variety of academic viewpoints. Comprehensive and interdisciplinary review of global, historical, and cultural trends, supplemented by readings and discussion. Varied content due to changing honors forum themes and issues.	Prerequisites: Admission to the college honors program or permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HON201	Leadership Development: Historical and Contemporary Perspectives		Interdisciplinary study of leadership focusing on development of leadership skills.	Prerequisites: Admission to the college honors program or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
HRC101	Overview of Healthcare Compliance		Introduction and overview of healthcare compliance; evolution of the field as a profession. Exploration of federally legislated mandates for a Compliance Program. Program elements. Organizational steps for	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			implementation in specific settings.				
HRC228	Healthcare Industry Regulation		Comprehensive review and study of laws that regulate the healthcare delivery industry including fraud and abuse, patient privacy, Protected Health Information (PHI) and electronic Protected Health Information (ePHI), and occupational safety for workforce members, patients, and visitors.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRC230	Healthcare Corporate Compliance Program Design		Creation, management, and evaluation of all aspects of a formal health care corporate compliance program. Compliance officers, compliance committee. Risk analysis, recommendations for corrective action. Implementation of corrective action.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRC232	Health Care Regulatory Compliance Program Design		Creation, management and evaluation of a health care regulatory compliance program including the work plan. Address the Health Insurance Portability and Accountability Act (HIPAA) Privacy and Breach Rules, HIPAA Security and Meaningful Use Attestation, Occupational Safety and Health Plan for workforce members, patients, and visitors. Occupational Safety and Health Administration (OSHA), Arizona Division of Occupational Safety and Health (ADOSH), Medicare/Medicaid Fraud and Abuse, Human Resources employment laws, Clinical Laboratory Improvement Act (CLIA)	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and Arizona Radiation Regulatory Agency (ARRA).				
HRC234	Health Care Regulatory Enforcement Case Studies		Comprehensive review of case studies involving litigation and enforcement of health care law including review of landmark and contemporary cases brought by the United States Office of the Inspector General (Fraud and Abuse); the Office of Civil Rights; the Health Insurance Portability and Accountability Act (HIPAA) Privacy and Security Laws. Application of knowledge and skills from earlier coursework to real-world situations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM102	Menu Planning Development	CUL109	Principles and techniques of menu planning for food service operations where food is served in quantity; includes applications for health care institutions, commercial kitchens, school cafeterias, and industrial facilities.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
HRM110	Introduction to Hospitality and Tourism Management		A fundamental overview of the hotel, restaurant, and tourism segments of the hospitality and tourism industry. Provides an overview of the operational sectors of the industry and reviews management components and skills. Contains components to develop communication skills and a professional career plan	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM120	Hotel Facility Management		Fundamental duties and responsibilities of hotel facility management. Emphasis on detail tasks, including personnel, cleaning, purchasing, equipment, textiles, maintenance,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and safety. Examines basic systems for hotel facility management record keeping				
HRM126	Food Service Cost Systems		Basic skills necessary to understand and utilize cost controls. Overview of systems for purchasing, storage, production control, and budgeting. Mechanical and mathematical details emphasized. Accounting process taught with aid of microcomputer. Introduction to standardized accounting software.	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0
HRM130	Guest Services Management		Examines organization and management of the hotel front office and guest service operations. Explores key front office functions and related systems and skills necessary to ensure guest satisfaction and efficient operations	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM140	Food Production Concepts		Concepts related to preparation of hot foods, pantry, and bakery items for commercial kitchens. Emphasis on essential components and techniques of food production, food cost control, setting standards, ordering, and inventory	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM142	Wine: From Vine to Table		An overview of the history, culture, viticulture techniques, production, distribution, control, and consumption in the wine industry. Provides an overview of wine and health issues, interpreting wine labels, alcohol service laws, and general operational concepts of the wine industry.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM144	Gourmet Foods		The art and appreciation of gourmet foods, accompanied by	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			preparation and appropriate services.				
HRM145	Events Management		Introduction to organizing special events from concept through completion, including planning, coordination, marketing, financing and risk management. Overview of the critical stages and functions involved in staging and managing special events including meetings, conferences, entertainment, expositions, conventions and sporting events	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM146	International Meetings, Conventions and Exhibitions		Introduces the planning and executing of multinational and multicultural meetings, conventions and exhibitions. Emphasizes coordination, logistics, venue selection, budgeting and cultural competencies critical to a global business environment	Prerequisites: A grade of C or better in HRM110.		Occ	LEC 3.0 3.0 3.0
HRM150	Hospitality and Tourism Information Systems I		Overview of current computer technology, concepts and terminology as it applies to the hospitality and tourism industry. Use of software applications including word processing, spreadsheet, database and presentation graphics. Discussion of social and ethical issues related to computers. Exploration of relevant and emerging technologies in the industry.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM160	Tourism Principles and Practices		Introduces the fundamental principles and practices of tourism. Examines tourism sectors, consumer behavior, and factors that influence tourism. Focuses on the	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			interaction of tourism with the economy, environment and people.				
HRM170	Hospitality in Healthcare and Life Care Management		Provides an overview of the role of hospitality in healthcare facilities and life care communities. Topics include history and future growth, customer service in these high-touch environments, facility design and housekeeping requirements, medical and health management, sensitivity to those healing and dealing with end-of-life issues, overall providing a strong management and customer service structure while caring for the most vulnerable.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM220	Hospitality Managerial Accounting		Study of financial statement analysis, asset management, ratio analysis, analytical techniques, and investment decision making. Emphasis on planning, budgeting, and management decisions.	Prerequisites: A grade of C or better in ACC111 or ACC211 or HRM265.		Occ	LEC 3.0 3.0 3.0
HRM230	Beverage Management		Identification, production, purchasing, and service of spirits, wine and beer products. Marketing, menu development, and cost controls of a beverage operation. Special emphasis on staffing training, and legal regulations for beverage sales	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM235	Club Management		Examines organization and management of private clubs. Emphasis on member services and operations management. Explores key functions including food and beverage, golf operations, fitness and recreation programs	Prerequisites: A grade of C or better in HRM110.		Occ	LEC 3.0 3.0 3.0
HRM240	Commercial Food Production		Application of food preparation principles,	Prerequisites: A grade of C		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			procedures, and techniques to small and large quantity food production. Emphasis on techniques and procedures used in contemporary commercial kitchens	or better in HRM110 and HRM140.			
HRM244	Quality Sanitation Management		Systems approach to answering public health concerns, reducing sanitation risks, and ensuring satisfaction for guests, staff members, and owners. Definition and implementation of sanitation quality, cost control, and risk reduction in a hospitality operation	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM250	Hospitality and Tourism Information Systems II		Use of computer systems to generate information needed for management of lodging, tourism and food service businesses. Emphasis on computer-based hotel property and restaurant management systems. Includes basic ledger principles	Prerequisites: A grade of C or better in (HRM110 and HRM150) or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
HRM260	Hospitality Human Resource Management		Examines concepts and applications of human resource management in the hospitality industry. Topics include recruitment, selection, training and evaluation. Emphasis on current management methods and productivity in the service environment	Prerequisites: A grade of C or better in HRM110 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
HRM265	Financial Management for Hospitality and Tourism		Examines financial management concepts, analytical techniques and decision making processes essential to hospitality and tourism management. Provides an applied management approach to managing profitability, financing growth, and using financial analysis to make decisions.	Prerequisites: A grade of C or better in HRM110. MAT140 or MAT141 or MAT142 recommended but not required.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HRM270	Hospitality Marketing		Essential skills of defining a service market, developing a market plan, and directing personnel to follow market plan. Emphasis on marketing in the hospitality industry and understanding segmentation, positioning and promotion in that market	Prerequisites: A grade of C or better in HRM110.		Occ	LEC 3.0 3.0 3.0
HRM275	Restaurant Management		Overview of restaurant industry with focus on the major segments. Emphasis on developing plans for: marketing, accounting system, staffing, training, menu development and cost controls for restaurant operation. Special emphasis on safety and sanitation, and legal regulations in the restaurant industry	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM280	Hospitality and Tourism Law		Examines legal aspects of hotel, restaurant and tourism management. Uses case study approach to develop understanding of the laws and regulations governing guest relationships, contracts, employee relations, civil rights, alcoholic beverages, safety and product liability	Prerequisites: A grade of C or better in HRM110.		Occ	LEC 3.0 3.0 3.0
HRM285	Gaming Management		History, development, and management of casinos and gaming. Emphasis on environment, operations, regulation, accounting, auditing, and taxation of casinos and gaming operations	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HRM290	Ecotourism		Overview of ecotourism planning and development with emphasis on contemporary issues associated with environmentally sound, culturally sensitive and	Prerequisites: A grade of C or better in HRM110.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			economically viable tourism development. Examines the history and emergence of ecotourism and the establishment of policies and management practices associated with sustainable development that conserves natural resources while providing economic benefits				
HRM291	Directed Field Study - International		Directed international field study in hospitality or tourism at an approved site working with industry, government or the nonprofit sector. Designed to provide students the opportunity to integrate theories, principles, and practices from their program of study through practical application in an international setting. Includes a minimum of 240 documented hours of contact with the employer/subject of study at minimum.	Prerequisites: Completion of 15 credits in the Hospitality and Tourism Program a 3.0 or higher grade point average and permission of the program director.	HRM291 may be repeated for a total of six (6) credits with permission of the Program Director.	Occ	LAB 3.0 15.0 0.0
HRM292	Directed Field Study		Directed field study in hospitality or tourism at an approved site working with industry, government or the nonprofit sector. Designed to provide students the opportunity to integrate theories, principles, and practices from their program of study through practical application. Includes a minimum of 240 documented hours of contact with the employer/subject of study.	Prerequisites: Completion of 15 credits in the Hospitality and Tourism Program a 3.0 or higher grade point average and permission of the program director.	HRM292 may be repeated for a total of six (6) credits with permission of the Program Director.	Occ	LAB 3.0 15.0 0.0
HRM295AA	Hospitality Internship		Hospitality and/or tourism work experience in a business or industry. Eighty hours of	Prerequisites: Permission of Department or Division.	HRM295AA may be repeated for three (3) credits.	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			designated work per credit.				
HRM295AB	Hospitality Internship		Hospitality and/or tourism work experience in a business or industry. Eighty hours of designated work per credit for a total of 160 hours.	Prerequisites: Permission of Department or Division.		Occ	LAB 2.0 2.0 0.0
HRM295AC	Hospitality Internship		Hospitality and/or tourism work experience in a business or industry. Eighty hours of designated work per credit for a total of 240 hours.	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 3.0 0.0
HRM296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
HRM296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
HRM296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students major or career interest or with permission of Instructor.			
HRM296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
HRM298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
HRM298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
HRM298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
HSE101	Teaching Foundations in Healthcare Education		Examination of teaching foundations essential to understanding healthcare education as a discipline. Orientation to health professions	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			concepts such as patient-centered care, interdisciplinary teams and evidence-based practice. Exploration of differences in healthcare education versus educational practices to develop skills necessary for a career as a health professions educator.				
HSE102	Ethics and Diversity in Healthcare Educational Settings		Exploration of topics related to ethics and diversity within the educational setting as it relates to healthcare programs. Examination of the role of prejudice, stereotyping, and cultural incompatibilities in healthcare education. Reiterating topics of professionalism, legal knowledge, code of conduct, and other issues that are routinely addressed in the classroom and healthcare.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HSE103	Curriculum Design and Teaching in Healthcare Education		Introduction to curriculum design for healthcare education coursework derived from formal career and clinical knowledge. Examination and application of learning and teaching theories and curriculum models within the classroom, laboratory, or clinical learning environment in healthcare education.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
HSE104	Assessment and Evaluation in Clinical Education		Application and determination of student performance using various methods. Methodologies will be explored on how to gauge the students' comprehension and understanding, and this feedback will help inform instruction.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HSE105	Technology Integration and		Explore and apply various forms of tools	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Design for Healthcare Education		and technology in the teaching and learning processes, and how to engage these processes in the classroom. Introduction to Learning Management Systems (LMSs) and course design.				
HSE106	Introduction to HIPAA Privacy Rule		Purpose and intent of the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule. Regulation interpretation and application in the health care environment. Guidelines for development of key documents. Penalties for non-compliance	Knowledge of basic operations of a medical practice or other health care environment.		Occ	LEC 2.0 2.0 2.0
HSE107	Research Methods for Healthcare Education		Introduction of qualitative, quantitative, and mixed methods research in the study of education within the health professions. Explores ethical issues, human subject protection, and institutional review boards associated with research in higher education. Enables students to become better consumers of educational research.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
HSE108	Practicum in Healthcare Education		Capstone course including curriculum, design, and assessment. Facilitates role transition from student to healthcare educator. Focus on student presentations to a panel of students or peers.	Prerequisites: A grade of C or better in HSE101, HSE102, HSE103, HSE104, HSE105, and HSE107, or permission of Program Director.		Occ	LAB 3.0 3.0 3.0
HSE110	Successful Grant Writing		Grant seeking and grant writing processes for the beginning grant writer. Pre-application preparation, application development, and grant proposal evaluation and	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			follow-up. Includes development of grant applications for government and private funding sources				
HSM122	Health Services Supervision		Skills and techniques for the leadership and supervision of health services employees. Emphasis placed on assertive supervision, effective human relations skills, and the enhancement of oral and written workplace communications	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HSM125	Current Issues in Health Services Management		Overview of the inner workings of the health care industry and the forces that drive and control the delivery of health services. Explores financial, technological and human resources, regulatory systems, and national, state and local issues	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HSM207	Health Service Management Internship		Application of leadership, supervisory and managerial skills and observation of administrative function in a specific health services setting.	Prerequisites: A grade of C or better in Any three (3) of the following four (4) courses: HSM122, or HSM125, or HSM222, or HSM226, or permission of Instructor.		Occ	LAB 3.0 15.0 0.0
HSM222	Health Services Management		The role and functions of management in understanding and building organizational effectiveness. Focuses on the manager as a leader and planner capable of developing motivated and committed employees and work teams	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HSM226	Ethics and Legalities of Health Services Management		Identification, analysis, and problem solving related to legal and ethical issues in health services management.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes an emphasis on employment law, confidentiality issues, accurate financial reporting and personal promotional preparation				
HSM230	Healthcare Strategic Planning and Deployment		A comprehensive look at the development and implementation of strategic plans within healthcare business environments. This course explores essential techniques, tools, data, and communication strategies for developing strategic plans in order to make better recommendations for initiatives across the continuum of healthcare services.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
HSM282AA	Volunteerism for Health Services Management: A Service Learning Experience		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in Any three (3) of the following four (4) courses: HSM122, or HSM125, or HSM222, or HSM226, or permission of Instructor.		Occ	LAB 1.0 1.0 1.0
HST180	Overview of Histology (Anatomic) Laboratory		Overview of anatomic laboratory services, anatomic laboratory professionals, and the role of the histology technician. Emphasis on certification, accreditation, and regulatory agencies. Application of process improvement, quality control, laboratory mathematics, infection control, sharps/mechanical hazards, documentation, medico-legal implications, and chemical hygiene principles. Includes	Prerequisites: Admission to Histologic Technology program or permission of Program Director.		Occ	LAB 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			information management in anatomic laboratories. Importance of management and supervision leadership principles and professional growth and ethical conduct.				
HST181	Chemistry of Fixation		Principles of fixation and fixative solutions. Anatomic laboratory instrumentation and specimen handling, identification, and tracking protocols. Emphasis on gross examination processes, tissue processing protocols, and specialized processing techniques.	Prerequisites: Admission to Histologic Technology program or permission of Program Director, and a grade of C or better in HST180.		Occ	L+L 3.0 3.0 3.0
HST182	Microtomy		Emphasis on decalcification techniques, ergonomic safety practices for microtomy, and frozen section techniques. Application of embedding orientation by tissue type. Procedures for paraffin embedding station, cryostat and rotary microtome set-up and maintenance, and sharps safety practices for the microtome. Includes techniques for microtomy, specialized microtomy, frozen section, and cytology specimen preparation.	Prerequisites: A grade of C or better in HST181.		Occ	L+L 5.0 4.0 4.0
HST183	Practicum: Chemistry of Fixation		Practicum in histology techniques performed in an anatomic laboratory. Application of clinical skills for specimen handling, identification, and tracking protocols. Use of anatomic laboratory instrumentation. Study of gross examination protocols. Demonstration of fixation techniques, paraffin processing	Prerequisites: A grade of C or better in HST181 or permission of Program Director.		Occ	LAB 1.0 4.5 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			protocols, and specialized processing techniques. Performance of clerical and computer functions using medico-legal guidelines for documentation. Use of professional and ethical conduct in all interpersonal communications.				
HST184	Practicum: Microtomy		Practicum in histology techniques performed in an anatomic laboratory. Use of decalcification and frozen section techniques. Includes embedding orientation by tissue type and ergonomic safety practices for microtomy. Procedures for the paraffin embedding station, cryostat and rotary microtome set-up and maintenance, and sharps safety practices for the microtome. Emphasis on techniques for microtomy, specialized microtomy, frozen section, and cytology specimen preparation.	Prerequisites: A grade of C or better in HST182.		Occ	LAB 1.0 4.5 0.0
HST185	Cellular Biological Staining		Recognition of basic cellular structure. Identification of carbohydrates classification, pigments, minerals, and lipids in tissues and connective tissue structures. Explanation of chemical staining theory. Stain principles and procedures for nuclear and cytoplasmic structures, carbohydrates and lipids, connective tissue, and tissue pigments and minerals stains.	Prerequisites: A grade of C or better in HST182. Corequisites: HST187.		Occ	L+L 5.0 4.0 4.0
HST186	Cellular Biological and Immunohistochemical Staining		Identification of pathologic organisms and neurological structures. Use of stains	Prerequisites: A grade of C or better in HST185.		Occ	L+L 5.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			for microorganisms and neurological structures. Explanation of theories of histochemical and immunohistochemical staining. Procedures for histochemical and immunohistochemical stains. Overview of specimens for electron microscopy and autopsy procedures. Emphasis on assessing histology workflow processes, laboratory procedure manuals, and workload and productivity recording and monitors.				
HST187	Practicum: Cellular Biological Staining		Practicum in histology techniques performed in an anatomic laboratory. Recognition of basic cellular structure, carbohydrate structures, connective tissue, lipid structures, and pigments and minerals in tissues. Application of chemical staining. Emphasis on stains for nuclear and cytoplasmic structures, carbohydrates and lipids, connective tissue, and tissue pigments and minerals stains.	Prerequisites: A grade of C or better in HST185.		Occ	LAB 1.0 4.5 0.0
HST188	Practicum: Cellular Biological and Immunohistochemical Staining		Practicum in histology techniques performed in an anatomic laboratory. Identification of pathologic organisms and neurological structures. Use of stains for microorganisms and neurological structures. Application of histochemical and immunohistochemical stains. Observation of electron microscopy and autopsy procedures. Emphasis on histology workflow processes, laboratory procedure manuals, and workload and productivity recording and monitors.	Prerequisites: A grade of C or better in HST186.		Occ	LAB 1.0 4.5 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HTM150	Introduction to Healthcare IT and Systems		Introduction to current and emerging Healthcare IT systems with particular emphasis on healthcare information and data, governance, information systems and technologies, and industry challenges in a value-added healthcare environment.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
HTM200	Healthcare IT Software Infrastructure: Interoperability, Security and mHealth		Application of industry-specific IT skills to entry-level Healthcare IT software development projects, with particular skills emphasis on high-growth areas such as interoperability, security and Mobile Health (mHealth).	Prerequisites: A grade of C or better in [(CIS133AA and CIS133BA and CIS133CA) or CIS133DA] and CIS150AB and HTM150 and permission of Program Director.	Admission to either CCL or AAS program in Healthcare Technology Systems required for permission to enroll. Application includes verification that student has met program prerequisites.	Occ	L+L 3.0 4.0 4.0
HTM230	Healthcare Data Analytics, Artificial Intelligence (AI) and Machine Learning		Overview of theories and practical applications of Data Analytics, Artificial Intelligence (AI), and Machine Learning. A focus on trends, opportunities, and emerging uses, as well as best practices, limitations, and ethical implications. Hands-on practice with current tools to solve complex healthcare problems.	Prerequisites: A grade of C or better in (BPC110 or CIS105) and HTM150.		Occ	L+L 3.0 4.0 4.0
HTM250	Healthcare IT Systems Development Life Cycle (SDLC)		Introduction to the Systems Development Life Cycle (SDLC) methodologies and tools currently used on healthcare Information Technology (IT) projects, with particular emphasis on software development. Experience with	Prerequisites: A grade of C or better in CIS224 and HTM200 or Corequisites: CIS224 and HTM200.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			application development and testing tools in a project-based lab setting.				
HTM270	Healthcare IT Systems Capstone		Culminating application of the skills, knowledge, communication and critical thinking skills from the Healthcare Technology Systems program to address industry-specific challenges. Includes investigation and application of current and emerging healthcare technologies.	Prerequisites: A grade of C or better in HTM250.		Occ	L+L 3.0 4.0 4.0
HTM280	Healthcare Technology Systems Career Strategies		Overview of the career exploration and planning process designed to assist students interested in healthcare technology systems and related fields to transition into the professional world. Focuses on current occupational trends and career decision-making strategies with a special emphasis on experiences within the field. Includes practice with self-presentation in the professional world such as effective resumes, personal portfolio, interviewing skills, online presence and professional appearance.	Prerequisites: A grade of C or better in HTM150.		Occ	L+L 3.0 2.0 2.0
HUM100	Great Ideas Symposium		Interrelationships among cultures and behavior in the modern world. Focuses on selected themes and topics	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
HUM101	General Humanities		A general humanities course concentrating on three great ages of outstanding human achievement: The Golden Age of Greece, the Renaissance and the 20th Century	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HUM107	Humanities Through the Arts		Introduction to humanities including film, drama, music, literature, painting, sculpture, and architecture	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM108	Contemporary Humanities		An exploration of human expression in contemporary arts and sciences	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM120	Cultural Viewpoints in the Arts		Introduction to the influence of culture and ethnicity on the artist, including factors such as race, religion, gender, class, sexual preference, age, and region. Lecture and discussion on various art forms, including literature, visual arts, music, dance, film, and theater.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HUM190AA	Honors Forum		Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues	Prerequisites: Admission to the College Honors Program or Permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA, HUM190AB	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					, HUM190AC , HUM190AD , HUM190AE , HUM190A F, HUM190AG , HUM190AH , HUM190AI		
HUM190AB	Honors Forum		Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues	Prerequisites: Admission to the College Honors Program or Permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] - Combinatio n select three (3) courses from: HUM190AA , HUM190AB , HUM190AC , HUM190AD , HUM190AE , HUM190A F, HUM190AG , HUM190AH , HUM190AI	Acad	LEC 1.0 1.0 1.0
HUM190AC	Honors Forum		Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied	Prerequisites: Admission to the College Honors Program or Permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]- Combinatio n select	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			content from module to module due to changing forum themes and issues		three (3) courses from: HUM190AA , HUM190AB , HUM190AC , HUM190AD , HUM190AE ,HUM190A F, HUM190AG , HUM190AH , HUM190AI		
HUM190AD	Honors Forum		Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues.	Prerequisites: Admission to the College Honors Program or Permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] - Combinatio n select three (3) courses from: HUM190AA , HUM190AB , HUM190AC , HUM190AD , HUM190AE ,HUM190A F, HUM190AG , HUM190AH , HUM190AI	Acad	LEC 1.0 1.0 1.0
HUM190AE	Honors Forum		Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with	Prerequisites: Admission to the College Honors Program or	Course Attribute(s): General Education Designation :	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues	Permission of Instructor.	Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA , HUM190AB , HUM190AC , HUM190AD , HUM190AE ,HUM190A F, HUM190AG , HUM190AH , HUM190AI		
HUM190AF	Honors Forum		Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues	Prerequisites: Admission to the College Honors Program or Permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA , HUM190AB , HUM190AC , HUM190AD , HUM190AE ,HUM190A F, HUM190AG , HUM190AH , HUM190AI	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HUM190AG	Honors Forum		Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues	Prerequisites: Admission to the College Honors Program or Permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA , HUM190AB , HUM190AC , HUM190AD , HUM190AE ,HUM190A F, HUM190AG , HUM190AH , HUM190AI.	Acad	LEC 1.0 1.0 1.0
HUM190AH	Honors Forum		Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues	Prerequisites: Admission to the College Honors Program or Permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA , HUM190AB , HUM190AC , HUM190AD , HUM190AE ,HUM190A F, HUM190AG , HUM190AH , HUM190AI.	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					HUM190AG , HUM190AH , HUM190AI		
HUM190AI	Honors Forum		Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues	Prerequisites: Admission to the College Honors Program or Permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA , HUM190AB , HUM190AC , HUM190AD , HUM190AE ,HUM190A F, HUM190AG , HUM190AH , HUM190AI	Acad	LEC 1.0 1.0 1.0
HUM201	Humanities: Universal Themes		Study of worldviews in a variety of historical and contemporary world cultures, including analysis of origin and creation myths, artistic expression, spirituality, and the natural environment.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM202	Humanities: Universal Themes		The hero/heroine; fool, the social world, and the future as themes in the humanities	Prerequisites: None.	General Education Designation :	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Humanities, Arts and Design - [HU]		
HUM205	Introduction to Cinema	THF205	Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM206	Introduction to Television Arts	THF206	History and development of electronic media and its impact on popular arts.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HUM209	Women and Films	WST209	Analysis of images of women in films from both historical and contemporary perspectives	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM210	Contemporary Cinema	THF210	A study of contemporary films, directors and critics with emphasis on evaluating film as an art form.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM211AA	Foreign Films: Classics		Analysis of contributions of foreign directors to the art and history of motion pictures through a study of selected films	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities,	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Arts and Design - [HU]		
HUM211AE	Foreign Films: Italian		Analysis of contributions of Italian directors to the art and history of motion pictures through a study of selected films.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
HUM212	Documentary Film		Survey of documentary or non-fiction film. Emphasis on the interplay between form, subject, cultural context and filmmaker perspective. Focuses on primary types of documentary film, such as poetic, observational, expository reflexive, participative, and performative. Analyzes what distinguishes documentary film from fiction film.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
HUM213	Hispanic Film		Analysis of Hispanic film as art form and as social commentary	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM214	African-Americans in Film		Study of films featuring African-American performers and directors from the Silent Era to the present. Emphasis on the historical and social elements of African Americans in film and basics of film analysis	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HUM215	Film Comedy		Explores the basics of humor in film by tracing its roots through a historical examination of a variety of arts, artists, and theorists. Focuses on films' unique contributions to the world of laughter. Investigates how comedy, and film comedy in particular, provides an essential and unifying force for culture and society.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM216	The Films and Career of Alfred Hitchcock		Focuses on the career, films, and cinematic and cultural influence of acclaimed director Alfred Hitchcock. Includes the director's cinematic innovations, techniques, major films, and his influence on modern filmmakers.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM220	History and Film		Presents historically based films and analyzes their accuracy, filmmaking techniques, and their value as cinematic historical records of U.S. and global events.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM225	Introduction to Popular Culture		Introduction to major topics in the field of popular culture studies. Includes basic theories, methods, and concepts used to analyze popular culture texts and practices.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
HUM235	Disability Studies		Considers representations of disability as artifacts of Western and non-Western cultures against changing backdrops in knowledge, ideas, beliefs, values, and practices. Works to build awareness, understanding, and empathy in regards to diverse forms of humanity and to de-	Prerequisites: A grade of C or better in ENG101 and (RDG100 or RDG100LL or RDG111 or RDG112 or RDG113 or eligibility for CRE101 as indicated by appropriate	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			stigmatize disease, illness, and impairment.	reading placement test score).	Design - [HU] Literacy and Critical Inquiry - [L] Social and Behavioral Sciences - [SB]		
HUM245	Introduction to Holocaust Studies		Introduction to essential information about the Holocaust. Provides theological, social and political background to establish contexts of anti-Semitism, especially in 19th and 20th centuries, with particular attention to National Socialist ideologies. Ghetto and camp life, including resistance, are explored. Emphasis is on texts of the Holocaust, including historical documents, participant testimonies, fiction, creative non-fiction, and poetry, much of which involves theological and moral debate. Includes analysis of supplementary visual material and some performing arts.	Prerequisites: None. CRE101 or CRE111 or equivalent as indicated by appropriate reading placement test score recommended but not required.	General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM250	Ideas and Values in the Humanities: Early Civilizations to the Renaissance		An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the early civilizations to the Renaissance, including western and non-western cultures.	Prerequisites: A grade of C or better in ENG101.		Acad	LEC 3.0 3.0 3.0
HUM251	Ideas and Values in the Humanities: Renaissance to the Contemporary World		An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the Renaissance to modern period, including Western and Non-Western cultures.	Prerequisites: A grade of C or better in ENG101.		Acad	LEC 3.0 3.0 3.0
HUM260	Intercultural Perspectives		Cultural, literary, and artistic expressions of	Prerequisites: None.	Course Attribute(s):	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Native, Hispanic, and African Americans. Includes traditional and modern work and contribution to American civilization		General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]		
HUM261	Asian Ideas and Values		An examination of Asian cultural traditions for their humanistic ideas and values: the arts, music, literature, religions, and philosophies of Asia, with emphasis on India and its sphere of influence in southeast Asia, and on China and its sphere of influence, particularly Japan	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM292	The Art Of Storytelling	EDU292 STO292	Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
HUM295	Topics in the Humanities		Exploration of selected topic in the humanities. Focuses on a theme, concept, era, or genre. Analysis and interpretation of topic's representation, development, and significance in at least	Prerequisites: A grade of C or better in (ENG101 or ENG107) or permission of Instructor.	HUM295 may be repeated for a total of nine (9) credit hours.	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			three different humanities areas and in a variety of world cultures.				
HUM296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
HUM296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
HUM296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
HUM296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to	Prerequisites: Completion of at least twelve (12) college credits		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the career objectives of the students.	minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
HUM298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
HUM298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
HUM298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
HVA101	HVAC for Residential Systems I	FAC101	Introduction to major components and functions of residential heating, ventilation, and air conditioning (HVAC) systems, to include heat flow and basic electrical concepts.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0
HVA102	HVAC for Residential Systems II		Applications of theory and basic principles of refrigeration in residential heating, ventilation, and air conditioning (HVAC) systems. Includes installations, diagnostics, preventative and predictive maintenance, and customer service.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: FAC/HVA101 or permission of Department or Division.		Occ	L+L 5.0 7.0 7.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HVA104	EPA Section 608 Technician Preparation and Certification		Laws, standards and procedures for the preparation to complete the certification for the Environmental Protection Agency (EPA) SECTION 608 - stationary equipment. Core certification requirements for Type I Technicians, Type II Technicians, Type III Technicians, and Universal Technicians. Type I Technician - primarily works on small appliances. Type II Technician - primarily works on appliances/equipment using high and very high pressure refrigerant. Type III Technician - primarily works on appliances/equipment using a low pressure refrigerant. Universal Technician - for servicing all appliances.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
HVA120	HVAC Installation		Introduction to installation of residential heating, ventilation, and air conditioning (HVAC) systems. Includes startup and verification of proper equipment operation.	Prerequisites: A grade of C or better in HVA102 or permission of Department.		Occ	L+L 4.0 6.0 6.0
HVA130	HVAC Troubleshooting		Introduction to troubleshooting the components of residential heating, ventilation, and air conditioning (HVAC) systems, to assure proper equipment operation.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: HVA120 or permission of Department.		Occ	L+L 4.0 6.0 6.0
HVA131	Electrical Systems	CON131	Electricity related to residential and light commercial applications, to include common electrical components, AC and DC circuits, and electrical safety. Provides an introduction to reading, interpreting,	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and creating wiring diagrams and the application of electrical power. Operation and use of specific meters, tools, and an introduction to National Electrical Code (NEC).				
HVA210	Facilities Air Conditioning Systems	FAC210	Fundamental principles of air conditioning including all-air, all-water (hydronic) and air-water combination systems. Overview of the physical principles, including air distribution systems and heating and cooling load calculation. System components and application theory for boilers, chillers, pumps, fans, and cooling towers. Theory and application of central air conditioning systems, air cleaning and humidification devices, pressure boosting, heat storage, expansion and pressurization equipment. Properties of water, pressure distribution in hydronic systems, flow in pipes, pressure drop/head loss, pump applications and pressurization of open and closed hydronic systems. Fundamentals of low and high temperature water systems.	Prerequisites: A grade of C or better in HVA130 or permission of Department.		Occ	L+L 4.0 6.0 6.0
HVA231	Codes	FAC231	Local codes, Federal Housing Administration and Urban Development standards. Acceptable building practices based on the Uniform Building Code, National Electric Code, Uniform Mechanical Code, and the Uniform Plumbing Code. Impact of American with Disabilities Act (ADA) on	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			new and existing facilities.				
HVA296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
HVA296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
HVA296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
HVA296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
HVA298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
HVA298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
HVA298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
HVC101	HVAC for Residential Systems I		Introduction to major components and functions of residential heating, ventilation, and air conditioning (HVAC) systems, to include heat flow and basic electrical concepts.	Prerequisites: None.		CLK	130
HVC102	HVAC for Residential Systems II		Applications of theory and basic principles of refrigeration in residential heating, ventilation, and air conditioning (HVAC) systems. Includes installations, diagnostics, preventative and predictive maintenance, and customer service.	Prerequisites: None.		CLK	130

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
HVC120	HVAC Installation		Introduction to installation of residential heating, ventilation, and air conditioning (HVAC) systems. Includes startup and verification of proper equipment operation.	Prerequisites: A grade of C or better in HVC102 or permission of department.		CLK	130
HVC130	HVAC Troubleshooting		Introduction to troubleshooting the components of residential heating, ventilation, and air conditioning (HVAC) systems, to assure proper equipment operation.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: HVC120 or permission of department.		CLK	130
HWC101	Health and Wellness Coaching		Provides the foundational practical skills for the application of the appropriate structure and processes of health and wellness coaching. Fundamental techniques and concepts used in coaching to establish effective coach-client partnerships, build trust and rapport, assess client readiness, and ensure ethical and professional considerations in coaching. Satisfies components of the National Board for Health and Wellness Coaching requirements.	Prerequisites: None.		Acad	L+L 3.0 4.0 4.0
HWC290	Health and Wellness Coaching Internship		Work-based experience in health and wellness coaching. Eighty hours of designated work per credit.	Prerequisites: A grade of C or better in HWC101 and permission of Instructor.	HWC290 may be repeated for credit.	Acad	LAB 1.0 1.0 0.0
IBS101	Introduction to International Business		A basic overview of international business to introduce students to international trade concepts. Focus of the course is on international business environment issues that influence global business	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			practices, decisions and applications				
IBS104	International Finance		The development of foreign exchange and international banking is examined. Methods of export financing, including both short- and medium-term credit and an in-depth review of application to and administration of government loan programs are covered. Important factors in country risk analysis are discussed	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
IBS105	International Law		Introduction to the legal aspects and ramifications of international trade topics including multinational enterprises, sovereignty, technology transfer, arbitration, negotiation and diplomacy	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
IBS108	Basics of Import/Export Operations		An overview of the steps involved in importing and exporting a product or service from beginning to end. Course includes an introduction to the United States Customs Service, what customs brokers do, duty rate structure and determination, basic laws affecting imports, currency exchange and letters of credit. Practical advice about storage and transportation of shipments after they have cleared customs. Other topics will include marketing, organization, regulations, terms of sale, documentation, shipment and financing involved with international enterprises, sovereignty, technology transfer, arbitration, negotiation, and diplomacy	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
IBS109	Cultural Dimension for International Trade		The importance of cultural sensitivity in international business relations investigated by studying the impact of geography, history, religion, politics, customs and cross-cultural communications on society	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Occ	LEC 3.0 3.0 3.0
IBS116	Export/Import Management		Basics of importing and exporting processes with focus on documentation and procedures. Includes transportation and distribution options, freight forwarders, International Common Terms (INCO) shipping terms, packaging strategies, contract negotiation, and execution of international contracts	Prerequisites: A grade of C or better in IBS101 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
IBS118	International Marketing Management		Planning, implementing, and managing international marketing strategies through application of international marketing research and evaluation in diverse cultural, economic, and political environments. Emphasis on implementation of product, price, promotion, and distribution strategies	Prerequisites: A grade of C or better in IBS101 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
IBS123	U.S. Customs and Export Licensing Regulations		Requirements for importing into the United States, and for export clearance, licensing, and foreign entry. Includes role of customs brokers, duty rate structure and determination as well as Commerce Control List (CCL) and Export Control Commodity Numbering (ECCN), export licenses, and	Prerequisites: A grade of C or better in IBS101 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			governmental requirements regarding exports				
IBS140	International Financial Management		Development of foreign exchange and international banking, including methods of payment, export financing, and application for and administration of government loan programs, country risk analysis, and negotiation and processing of letter of credit and other payment methods	Prerequisites: A grade of C or better in IBS101 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
IBS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
ICE220	Sectional Anatomy	DMI220 DMS220	Sectional human anatomy in the transverse, sagittal and coronal planes. Emphasis on the brain, neck, chest, abdomen and pelvic cavity.	Prerequisites: (BIO160 or BIO201) and (HCC145 or HCC146), or a graduate of a related medical program of study or currently registered as a technologist in radiography, nuclear medicine,		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				radiation therapy or sonography OR Admission to the Medical Radiography Program or permission of Instructor.			
ICE223	Introduction to Computed Tomography		Overview of the principles and operation of computed tomography (CT) scanner. Content includes history, physics processes, instrumentation components, imaging acquisition, reconstruction and display for computed tomography imaging.	Prerequisites: Admission to the Medical Radiography Program or permission of Instructor.		Occ	LEC 1.0 1.0 1.0
ICE229	Magnetic Resonance (MR) Multi-Planar Sectional Anatomy		Three dimensional anatomy presented in transverse, sagittal and coronal planes of specified regions of the human body as viewed from magnetic resonance imagery. Includes structure identification of the bones, muscles, vascular system, organs, soft tissue components and weighted imaging.	Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (certified by American Registry of Diagnostic Medical Sonography (ARDMS) or ARRT in Diagnostic Medical Sonography), or (Radiography		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				, Radiation Therapist, Nuclear Medicine, or Sonography student currently enrolled at GateWay), or registry eligible graduate] and DMI/DMS/IC E220 and ICE233.			
ICE231	Professional and Patient Interactions		Principles of verbal and non-verbal communication skills through the development of understanding self, patients, colleagues and others. Includes verbal communication, written instructions, communications devices, telephone protocol, resume writing and job interviewing techniques	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
ICE233	Fundamentals of Magnetic Resonance Imaging (MRI)		Overview of magnetic resonance imaging, program policies and student responsibilities. Includes fundamental principles of magnetic resonance imaging (MRI), primary and secondary equipment, and MRI terminology. Imaging parameters, clinical applications overview for MRI and preparation for physics, instrumentation, and safety coursework. Basic overview of safety issues and MRI contrast agents.	Prerequisites: (Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (certified by American Registry of Diagnostic Medical		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Sonography (ARDMS) or ARRT in Diagnostic Medical Sonography), or (Radiography , Radiation Therapist, Nuclear Medicine or Sonography student currently enrolled at GateWay), or registry eligible graduate. Corequisites: DMI/DMS/IC E220 or permission of Department or Division.			
ICE240	Fundamentals of Positron Emission Tomography		Overview of Positron Emission Tomography (PET). Comparison to other diagnostic imaging modalities. History of PET, applications and importance. Introduction to PET radiation safety.	Prerequisites: Completion of Associate in Applied Science in Medical Radiography or completion of Associate in Applied Science in Nuclear Medicine Technology or completion of Certificate of Completion in Radiation Therapy program or Corequisites: DMI220 ICE220 or permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
ICE248	Computed Tomography (CT)		Sectional human anatomy in the transverse, sagittal and	Prerequisites: [(Certified by American		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Multi-Planar Sectional Anatomy		coronal planes. Multi-planar emphasis on the musculoskeletal system to include multi-planar imaging of the facial bones, cervical, thoracic and lumbar spine, and extremities; and the heart and vascular structures.	Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (Radiography or Nuclear Medicine student currently enrolled at GateWay), or registry eligible graduates] and DMI/DMS/ICE220 and (DMI/ICE223 or NUC250) with a grade of "C" or higher, or permission of Instructor.			
ICE250	Mammography		Screening and diagnostic mammography. Includes anatomy, positioning, equipment, patient history, clinical breast examination, and image evaluation related to mammography. Breast pathology along with advanced testing and treatments, including other imaging modalities.	Prerequisites: American Registry of Radiologic Technologists (A.R.R.T.) certification or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
ICE254	Advanced Imaging Practicum		Advanced imaging procedures for the Graduate Radiologic Technologist from American Registry of	Prerequisites: [(Certified by American Registry of Radiologic	ICE254 may be repeated for a total of ten (10)	Occ	LAB 1.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Radiologic Technologists (ARRT) or registry eligible graduate performed under strict supervision. Use of correct technical and positioning techniques. Apply safety measures and procedures established by the institution and college. Observe ethical and legal guidelines and use of effective communication skills.	Technologist s (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (Radiography or Nuclear Medicine student currently enrolled at GateWay), or registry eligible graduates] or permission of Instructor.	credit hours.		
ICE263	Computed Tomography Physics and Instrumentation		Overview and evolution of Computed Tomography (CT) in medical imaging to include: X ray production, CT principles, system components and operation; image acquisition, processing, reconstruction, and display; artifacts, quality assurance, radiation dosimetry and patient safety; contrast administration, imaging protocols; and competencies as outlined by American Registry of Radiologic Technologists (ARRT) for the CT Certification Examination.	Prerequisites: [(Certified by American Registry of Radiologic Technologist s (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (Radiography or Nuclear Medicine student currently enrolled at GateWay), or registry		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				eligible graduates] and DMI/DMS/IC E220 and (DMI/ICE223 or NUC250) with a grade of "C" or higher, or permission of Instructor.			
ICE264	MRI Physics, Instrumentation and Safety		An overview into the physics, equipment, physical design, and image characteristics of Magnetic Resonance Imaging (MRI) systems.	Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (certified by American Registry of Diagnostic Medical Sonography (ARDMS) or ARRT in Diagnostic Medical Sonography), or (Radiography , Radiation Therapist, Nuclear Medicine, or Sonography student currently enrolled at GateWay), or registry eligible		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				graduate] and DMI/DMS/ICE220 and ICE233.			
ICE265	Computed Tomography Procedure Protocols		Standard procedures and protocols for Computed Tomography (CT) imaging in alignment with the American Society of Radiologic Technologists (ASRT) examination curriculum outline. Includes patient preparation and safety, choosing appropriate protocols, interventional procedures, contrast indicators, post-exam processing quality issues, and adapting to atypical scanning situations.	Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (Radiography or Nuclear Medicine student currently enrolled at GateWay), or registry eligible graduate] and (DMI/ICE223 or NUC250), and ICE248, and ICE263 with a grade of "C" or higher, or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
ICE267	Computed Tomography Advanced Imaging Practicum		Computed Tomography advanced imaging clinical practicum for those certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy, or certified by ARRT or the Nuclear Medicine	Prerequisites: Currently enrolled in the Computed Tomography Program.		Occ	LAB 2.0 12.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Technology Certification Board (NMTCB) in Nuclear Medicine, or current Radiography or Nuclear Medicine student, or registry eligible graduates to perform under strict supervision. Use of correct computed tomography instrumentation, protocol implementation and positioning techniques. Apply patient safety measures and follow As Low As Reasonably Achievable (ALARA) practices to reduce radiation dose as established by the institution. Practice within established ethical and legal guidelines. Use effective communication skills.				
ICE268	MRI Advanced Imaging Practicum		Advanced Magnetic Resonance imaging (MRI) clinical practicum is for those certified by the American Registry of Radiologic Technologists (ARRT) in Radiography, Radiation Therapy, or Sonography, or certified by ARRT of the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine. Use of correct magnetic resonance imaging instrumentation, protocol implementation and positioning techniques. Apply MRI safety, quality control procedures and effective patient care and communication skills.	Prerequisites: Currently enrolled in the Magnetic Resonance Imaging Program.	ICE268 may be repeated for a total of four (4) credit hours.	Occ	LAB 2.0 12.0 0.0
ICE269	Magnetic Resonance Procedure Protocols		Imaging techniques related to the central nervous system (CNS), neck, thorax, musculoskeletal system and abdominopelvic regions. Specific clinical	Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			application, available coils and use. Considerations in scan sequences, specific choices in protocols including slice thickness, phase direction, flow compensation, and positioning criteria. Anatomical structures and plane that best demonstrates anatomy. Signal characteristics of normal and abnormal structures.	Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or Certified by the American Registry of Diagnostic Medical Sonography (ARDMS) or (Radiography or Nuclear Medicine student), or registry eligible graduate] and ICE233 and ICE264 with a grade of "C" or higher, or permission of Instructor.			
ICE270	Contrast Media		Functions and applications of contrast media used in diagnostic radiographic imaging procedures. Chemical characteristics and properties of contrast media. Indications and contraindications including potential hazards of contrast media administration. Adverse reactions, patient care associated with reactions and medicolegal issues associated with administration of contrast media	Graduate radiologic technologist or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
ICE271	Physiologic Monitoring		Physiologic monitoring to include	Graduate radiologic		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			electrophysiology of the heart, electrocardiography, rhythms and dysrhythmias. Hemodynamic monitoring including equipment, parameters, and cardiovascular pressures. Vital signs to include normal and abnormal values	technologist or permission of Instructor.			
ICE272	Magnetic Resonance Pathology		Common pathologies found in magnetic resonance imaging, their appearance with various imaging protocols including all commonly imaged body systems and areas. Case studies and images of the pathologies to reinforce the lectures.	Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or Certified by the American Registry of Diagnostic Medical Sonography (ARDMS) or (Radiography or Nuclear Medicine student), or registry eligible graduate] and ICE233 and ICE229 with a grade of "C" or higher, or permission of Instructor.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ICE273	Computed Tomography Pathology		Common diseases diagnosed using Computed Tomography (CT) imaging. Appearance of pathology on CT to include: physiology, etiology, indications for exam, findings, and diagnosis. Case studies, images, and descriptions of pathologic conditions in various body systems will be presented in alignment with CT certification guidelines published by the American Registry of Radiologic Technologists (ARRT).	[(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (Radiography or Nuclear Medicine student currently enrolled at GateWay), or registry eligible graduate] and DMI/DMS/ICE220 and ICE248 with a grade of "C" or higher, or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
ICE290	Registry and Board Examinations Preparation		Preparation for the American Registry of Radiologic Technologist (ARRT) and the Medical Radiologic Technology Board of Examiners (MRTBE) examinations. Review of the ARRT and MRTBE content specifications, techniques for preparation and review of current literature	Qualified individuals preparing for the ARRT and MRTBE or permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
ICE291	Computed Tomography Registry and Board Exam Preparation	NUC291	Discussion of concepts outlined in the American Registry of Radiologic Technologists (ARRT) published content	Prerequisites: Permission of the Program Director or Instructor.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			specifications for their post-primary certification exam in computed tomography (CT).				
ICE292	MRI Board Exam Review Preparation		Preparation for the American Registry of Radiologic Technologists (ARRT) Medical Resonance Imaging (MRI) examination. Review of elements required to pass the AART examination, including patient care and safety, imaging procedures, data acquisition, and physical principles of image formation.	Prerequisites: A grade of C or better in DMI220, ICE220, ICE229, ICE233, ICE264, ICE269 and ICE272. Corequisites: ICE254.		Occ	LEC 1.0 1.0 1.0
ICE293	Registry Examination Preparation in Vascular-Interventional Radiography		Preparation for the American Registry of Radiologic Technologist (ARRT) in Vascular Interventional Radiography examination. Review of the ARRT content specifications, techniques for preparation, and review of current literature.	Prerequisites: Registered Radiographer s preparing for the American Registry of Radiologic Technologist (ARRT) Vascular Interventional Radiography examination or permission of Instructor.	ICE293 may be repeated for credit.	Occ	LEC 1.0 1.0 1.0
ICE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: None.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
ICE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: None.		Occ	LAB 2.0 2.0 0.0
ICE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: None.		Occ	LAB 3.0 3.0 0.0
IEC101	Basic Electricity		Electrical and first aid safety. Introduction to electricity, trade math, wiring techniques. Introduction to the National Electrical Code	Prerequisites: None.		Occ	LEC 5.0 5.0 5.0
IEC102	Electrical Residential		Series-parallel circuits, governing bodies, residential wiring practices, Kirchhoff's Law, kitchen outlets, heating systems, low voltage systems, service	Prerequisites: A grade of C or better in IEC101 or permission of Instructor.		Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			entrance requirements and swimming pools				
IEC104	Wiring Motors and Transformers		Sizes of wire, conduit and boxes; National Electric Code, sizing service and feeders, sizing transformers and protection of transformers	Prerequisites: Permission of Instructor.		Occ	LEC 5.0 5.0 5.0
IEC105	Electric Blueprint Reading		Three-phase systems, transformers, and blueprint reading, construction process, plumbing, masonry and welding blueprints as well as mechanical systems; electrical blueprints and grounding.	Prerequisites: A grade of C or better in IEC104 or permission of Instructor.		Occ	L+L 5.0 5.0 5.0
IEC106	Electric Motor Controls		Motor Control system, alternating current (AC) and direct current (DC) contactors and magnetic motor starters; time delay circuits, reversing circuits, power distribution systems and hazardous locations, signs and fiber optics.	Prerequisites: A grade of C or better in IEC105 or permission of Instructor.		Occ	L+L 5.0 5.0 5.0
IEC108	Alarm Systems and Codes		Fire and signaling systems. Installation and start-up of fire alarm systems, fire alarm maintenance and troubleshooting. Wiring methods and materials, circuits and equipment protection, motors and air conditioning circuits, transformers and generating. Dwelling occupancies, industrial and commercial locations, hazardous locations- swimming pool and leadership	Prerequisites: Permission of Instructor.		Occ	LEC 5.0 5.0 5.0
IEC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
IEC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
IEC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
IFS110	Critical Research for College Success		Access, evaluate, and incorporate sources	Prerequisites: None.	IFS110 may be repeated for a total of	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			appropriately into academic projects.		four (4) credit hours.		
IFS112	College Research Foundations		Development of research skills and competencies essential for college success including accessing, evaluating, and incorporating information sources into academic projects. Examination of information ecosystems, online presence, and the implications of one's information seeking behaviors.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
IFS201	Information in a Post-Truth World		Development of critical thinking skills in using information. Exploration of how information can be used as a tool or a weapon. Explanation of the role of information as a consumer and creator. Recognition of the impact of culture and worldview on how information is understood, created, and disseminated.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L] General Education Designation : Social-Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
IFS210	Information Without Borders: Research in a Global Society		A comparative study focused on access to digital information in a global environment. Explore the global culture developing around the Internet and the impact of local, national and global cultures as well as economic and social factors related to the flow of information in a global society. Examine emerging technologies to produce and distribute information across cultures in a global society in an ethical manner.	Prerequisites: None.	IFS210 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
IFS213	Hacking and Open Source Culture		Focus on the multi-dimensions of hacking and open source culture, including rule-breaking,	Prerequisites: None.	Course Attribute(s): General Education	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			innovation, and creative use of programming/technology . Social, economic, cultural, and political implications of hacking and technology, in historical and contemporary contexts will be addressed.		Designation : Social-Behavioral Sciences - [SB] General Education Designation : Historical Awareness - [H]		
IFS215	Health Information and Cultural Communities		Investigates impact of cultural diversity (ex: linguistic, religious, racial, ethnic, and gender groups) on health literacy by exploring characteristics of culturally competent health information. Examines barriers to high quality, culturally competent health information and creates methods of providing relevant information to low literacy populations.	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0
IGS290	Integrated Studies		Integrated nature of human experience. Critical inquiry of a particular theme from a wide variety of academic viewpoints. Synthesis of knowledge and skills. Evaluation of experience and decisions from ethical, aesthetic, and intellectual perspectives. Preparation of three formal papers.	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.		Acad	LEC 3.0 3.0 3.0
IGS290AA	Integrated Studies		Integrated nature of human experience. Critical inquiry of a particular theme from a wide variety of academic viewpoints. Synthesis of knowledge and skills. Evaluation of experience and decisions from ethical, aesthetic, and intellectual perspectives. Preparation of two formal papers	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
IGS290AB	Integrated Studies		Preparation of a formal paper related to IGS290AA that	Prerequisites: A grade of C or better in		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			demonstrates competency in gathering, interpreting and evaluating evidence.	IGS290AA or Corequisites: IGS290AA.			
IGS291	Studies in Global Awareness		Interdisciplinary examination of selected topics in global awareness. Study of the human organization and modern global interdependence. Selected topics vary	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Acad	LEC 3.0 3.0 3.0
IGS291AA	Studies in Global Awareness		Interdisciplinary examination of selected topics in global awareness. Study of the human organization and modern global interdependence. Selected topics vary	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
IGS292	Studies in Cultural Diversity		Interdisciplinary examination of selected topics in cultural diversity. Study of the interrelationships among diverse cultures within the contemporary United States. Selected topics vary	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Cultural Diversity - [C]	Acad	LEC 3.0 3.0 3.0
IGS292AA	Studies in Cultural Diversity		Interdisciplinary examination of selected topics in cultural diversity. Study of the interrelationships among diverse cultures within the contemporary United States. Selected topics vary	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
IGS293	Studies in Historical Awareness		Interdisciplinary examination of selected topics in historical awareness. Study of the historical method and of human events that have created modern life. Selected topics vary.	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.		Acad	LEC 3.0 3.0 3.0
IGS293AA	Studies in Historical Awareness		Interdisciplinary examination of selected topics in historical awareness. Study of the historical method and of human events that have created modern life. Selected topics vary	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
IGS294	Integrative Study of the Future		Integrative and interdisciplinary study of	Prerequisites: A grade of C		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the future. Critical inquiry of the future from historical, philosophical, literary, scientific, social, psychological, and religious perspectives. Comprehensive review of contemporary scientific- technological, environmental, and global and cultural trends and possible directions in the future. Synthesis of theoretical knowledge and practical and personal applications	or better in ENG101 or ENG107 or equivalent.			
IMC112	Introduction to Mechanical Trades Construction		Theories and concepts for mechanical trades construction: Basic safety, materials handling and construction math. Application and maintenance of hand and power tools, and basic rigging. Types and interpretation of construction drawings. Introduction to basic communication and employability skills.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC114	Overview of Mechanical Trades: Sheet Metal, Pipefitting, and Plumbing		Overview of the work performed in the mechanical trades. Theories and concepts of care, use, and safety procedures related to hand and power tools motorized equipment. Introductory concepts in construction drawings, safety hazards and installation of ductwork.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC120	Plumbing, Drain, and Waste Piping		Interpretation and grade requirements for drain piping. Planning, testing, and installation of specific types of drains.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
IMC122	Multiple Trades Cross Training: Tubes, Fittings and Piping Systems		Principles of architectural sheet metal, copper tube and fittings, carbon steel pipe and fittings, mechanical piping systems, and plastic pipe and fittings.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship		Occ	L+L 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Introductory concepts of drain, waste and vent (DWV) systems, soldering for sheet metal and pipefitting power tools.	p Coordinator.			
IMC124	Multiple Trades Cross Training: Standards		Fundamentals and theories of trade standards for sheet metal, plumbing systems, and mechanical piping systems installation.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC231	Mechanical Trades Construction: Plumbing Intermediate Principles and Concepts		Intermediate principles and concepts for the plumbing trade related to commercial drawings and calculations. Installation of fixtures, valves, faucets, roof, floor and area drain. Types of drains and fuel gas systems.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC233	Mechanical Trades Construction: Sheet Metal Intermediate Principles and Concepts		Intermediate principles and concepts for the sheet metal trade related to duct fabrication standards, air properties, bend allowances, field measuring, and triangulation.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC235	Mechanical Trades Construction: Pipefitting Intermediate Principles and Concepts		Intermediate principles and concepts for the pipefitting trade related to trade calculations, motorized equipment, above ground pipe installation. Emphasis on field routing, vessel trim, pipe hangers and support, testing systems and equipment.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC236	Mechanical Trades Construction: Plumbing Advanced Principles and Concepts		Advanced principles and concepts for the plumbing trade related to water supply piping installation, testing, and sizing. Application of advanced trade calculations and fundamentals of backflow prevention and types of venting.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC237	Mechanical Trades Construction: Sheet		Advanced principles and concepts for the sheet	Prerequisites: Registered		Occ	L+L 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Metal Advanced Principles and Concepts		metal trade related to piping practices, radial line development, layout and fabrication. Emphasis on air systems, shop production and organization.	apprenticeship status or permission of Apprenticeship Coordinator.			
IMC238	Mechanical Trades Construction: Pipefitting Advanced Principles and Concepts		Advanced principles and concepts for the pipefitting trade relative to blueprint reading, drawing, and detail sheets. Advanced application of weld pipe fabrication, rigging, standards, and specifications.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC241	Mechanical Trades Construction: Plumbing Advanced Skill Building		Application and review of advanced principles for drain, waste and vent (DWV) systems, pumps, compressed air systems, and potable water treatment. Fundamentals of business practices for plumbers.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC243	Mechanical Trades Construction: Sheet Metal Advanced Skill Building		Application and review of advanced sheet metal layout, fabrication, and installation. Review principles of airflow, air distribution systems, standards, comprehensive planning and specification reading.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC245	Mechanical Trades Construction: Pipefitting Advanced Skill Building		Application and review of advanced principles and concepts for valve maintenance, hot taps, special piping, and pipe fabrication.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC246	Mechanical Trades Construction: Plumbing Advanced Applications and Techniques		Application and review of advanced plumbing techniques for water pressure boosters, recirculation systems, review and function of codes for indirect and special wastes and the plumbing industry. Introduction to hydronic and solar heating	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			systems, servicing piping systems, fixtures and appliances. Team leadership skills.				
IMC247	Mechanical Trades Construction: Sheet Metal Advanced Applications and Techniques		Application and review of advanced sheet metal techniques for air testing and balancing. Review of codes and specifications pertaining to fume and exhaust system design including review and practice of lay out patterns, fabrication and selection of sheet metal fittings.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IMC248	Mechanical Trades Construction: Pipefitting Advanced Applications and Techniques		Application and review of advanced pipefitting techniques for advanced blueprint reading, steam systems, stress relieving and aligning. Purpose and function of in-line specialties and an introduction to supervisory roles.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0
IND110	Introduction to the Printing Industry		Brief history/introduction of graphic arts technologies including printing, photography, graphics and text. Safety and health practices, job estimating and trade customs as well as legal restrictions and requirements covered	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
IND111	Paper, Binding and Finishing Techniques		Finishing techniques and binding styles of paper. Covers paper properties, requirements, and grades. Various finishing and binding styles emphasized	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
IND112	Lithographic Inks and Offset Press Operations		Basic overview of lithographic inks and offset press operations. Sheet-fed and web-fed offset presses emphasized	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
IND133AB	Speaking in Business - Delivering Communication Messages		Practical, effective speech techniques for everyday business interactions. Examination of effective message preparation	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			skills and communication styles and techniques				
IND135	Interpersonal Skills and Leadership in Construction		Values and expectations of the workforce, building relationships, satisfying stakeholders. Effective communication, management grid, creating a leadership environment. Behavioral interviewing and professional development of personnel.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
IND136	Communications in Construction	ABA136	Communication in the construction industry. Positive direct communication, written communication, active listening, understanding, negotiation, and dealing with difficult people. Communication skills at all organizational levels, with groups, combining oral and written communication for maximum effectiveness.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
IND138	Introduction to Project Management and Resource Control	CON138	Technical and management skills such as preconstruction planning, cost and risk control and policy development. Criteria for project layout purchasing, subcontractor management, project layout. Preparation process for project start up, close out and alternate project delivery methods. Major factors which affect production control and production control standards. Project manager's role.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
IND140	Construction Scheduling and Time Management		Fundamental training in scheduling, including listing and sequencing, bar charts, network diagrams and methods of managing resources. Importance of formal schedules, job planning, and establishing	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			priorities and alternative scheduling methods.				
IND142	Construction Safety/Loss Prevention		Construction safety and loss prevention from the perspective of the construction superintendent. Includes communication and motivation for safety and loss prevention, project security and traffic control, and scheduling planning to prevent losses. Also includes loss prevention documents and inventories, assigning responsibility for safety and equipment maintenance, handling inclement weather and emergencies, and government regulations and inspections.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
IND144	Improving Construction Productivity		Techniques for improving the productivity of construction projects including external factors influencing productivity, planning and communications as functions of a productive project, and the relationship of motivation and job satisfaction to productivity. Also presents techniques for evaluating methods improvement, including the use of time lapse photography and development of a methods improvement program, time management and delegating responsibility	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
IND150	Construction Foreman	PNT150	Examine the basic supervisory and leadership concepts and skills needed to manage a construction project. Includes basic theories of motivation, role of communications in construction project	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			management,decision making process, planning and organizing, strategies, developing production schedules to control production, discussing accident prevention and loss control				
IND170AA	Training for Business, Industry, and Government - AA		Customized one credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AA requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 1.0 1.0 1.0
IND170AB	Training for Business, Industry, and Government - AB		Customized two credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AB requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 2.0 2.0 2.0
IND170AC	Training for Business, Industry, and Government - AC		Customized three credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AC requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 3.0 3.0 3.0
IND170AD	Training for Business, Industry, and Government - AD		Customized two credit lecture/lab course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AD requisites are defined on the suffixed IND170 specific courses.	Occ	L+L 2.0 4.0 4.0
IND170AE	Training for Business, Industry, and Government - AE		Customized three credit lecture/lab course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AE requisites are defined on the suffixed IND170 specific courses.	Occ	L+L 3.0 5.0 5.0
IND170AF	Training for Business, Industry, and Government - AF		Customized four credit lecture/lab course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AF requisites are defined on the suffixed IND170	Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					specific courses.		
IND170AG	Training for Business, Industry, and Government - AG		Customized one-half credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AG requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 0.5 0.5 0.5
IND170AH	Training for Business, Industry, and Government - AH		Customized four credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AH requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 4.0 4.0 4.0
IND170AI	Training for Business, Industry, and Government - AI		Customized five credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AI requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 5.0 5.0 5.0
IND170AJ	Training for Business, Industry, and Government - AJ		Customized one and one-half credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AJ requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 1.5 1.5 1.5
IND170AK	Training for Business, Industry, and Government - AK		Customized two and one-half credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AK requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 2.5 2.5 2.5
IND170AL	Training for Business, Industry, and Government - AL		Customized three and one-half credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AL requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 3.5 3.5 3.5
IND170AM	Training for Business, Industry, and Government - AM		Customized four and one-half credit lecture course to meet the immediate training needs of business, industry, and	Prerequisites: None.	IND170AM requisites are defined on the suffixed IND170	Occ	LEC 4.5 4.5 4.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			government within Maricopa County.		specific courses.		
IND170AN	Training for Business, Industry, and Government - AN		Customized one quarter credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AN requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 0.25 0.25 0.25
IND170AO	Training for Business, Industry, and Government - AO		Customized one credit lecture/lab course to meet immediate training needs of business, industry and government within Maricopa County.	Prerequisites: None.	IND170AO requisites are defined on the suffixed IND170 specific courses.	Occ	L+L 1.0 2.0 2.0
IND170AP	Training for Business, Industry, and Government - AP		Customized two credit lecture/lab course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AP requisites are defined on the suffixed IND170 specific courses.	Occ	L+L 2.0 3.0 3.0
IND170AQ	Training for Business, Industry, and Government - AQ		Customized three credit lecture/lab course to meet the immediate training needs of business, industry, and government within Maricopa County.	Prerequisites: None.	IND170AQ requisites are defined on the suffixed IND170 specific courses.	Occ	L+L 3.0 4.0 4.0
IND170AR	Training for Business, Industry, and Government - AR		Customized one credit lab course to meet immediate training needs of business, industry and government within Maricopa County.	Prerequisites: None.	IND170AR requisites are defined on the suffixed IND170 specific courses.	Occ	LAB 1.0 2.0 2.0
IND170AS	Training for Business, Industry, and Government - AS		Customized 1.75 credit L+L course to meet immediate training needs of business, industry and government within Maricopa County.	Prerequisites: None.	IND170AS requisites are defined on the suffixed IND170 specific courses.	Occ	L+L 1.75 1.75 1.75
IND170AT	Training for Business, Industry, and Government - AT		Customized 1.25 credit L+L course to meet immediate training needs of business, industry and government.	Prerequisites: None.	IND170AT requisites are defined on the suffixed IND170	Occ	L+L 1.25 1.25 1.25

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					specific courses.		
IND170AU	Training for Business, Industry, and Government-AU		Customized two credit lab course to meet immediate training needs of business, industry and government within Maricopa County.	Prerequisites: None.	IND170AU requisites are defined on the suffixed IND170 specific courses.	Occ	LAB 2.0 6.0 6.0
IND170AV	Training for Business, Industry and Government-AV		Customized three credit lab course to meet immediate training needs of business, industry and government within Maricopa County.	Prerequisites: None.	IND170AV requisites are defined on the suffixed IND170 specific courses.	Occ	LAB 3.0 9.0 9.0
IND170AW	Training for Business, Industry, and Government-AW		Customized one credit lab course to meet immediate training needs of business, industry and government within Maricopa County.	Prerequisites: To be specified.	IND170AW requisites are defined on the suffixed IND170 specific courses.	Occ	LAB 1.0 3.0 3.0
IND170AX	Training for Business, Industry, and Government-AX		Customized twelve credit lecture course to meet immediate training needs of business, industry and government within Maricopa County.	Prerequisites: To be specified.	IND170AX requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 12.0 12.0 12.0
IND170BA	Training for Business, Industry, and Government-BA		Customized two credit lecture with zero credit laboratory course to meet immediate training needs of business, industry and government within Maricopa County.	Prerequisites: To be specified.	IND170BA requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 2.0 1.5 1.5 LAB 0.0 1.5 1.5
IND170BB	Training for Business, Industry, and Government-BB		Customized two credit lecture with zero credit laboratory course to meet immediate training needs of business, industry and government within Maricopa County.	Prerequisites: To be specified.	IND170BB requisites are defined on the suffixed IND170 specific courses.	Occ	LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0
IND170BC	Training for Business, Industry, and Government-BC		Customized four credit lecture with zero laboratory course to meet immediate training needs of business,	Prerequisites: To be specified.	IND170BC requisites are defined on the suffixed IND170	Occ	LEC 4.0 2.5 2.5 LAB 0.0 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			industry and government within Maricopa County.		specific courses.		
IND170BD	Training for Business, Industry, and Government-BD		Customized L+L 4.0 credits, 4.5 periods, 5.0 load course to meet immediate training needs of business, industry and government within Maricopa County.	Prerequisites: To be specified.	IND170BD requisites are defined on the suffixed IND170 specific courses.	Occ	L+L 4.0 4.5 5.0
INS100	Insurance Industry Profession		Introduction to the insurance industry profession and environment. Includes identification of personal career goals, effective workplace behaviors and professionalism in the workplace in addition to strategies for problem solving and conflict management. Also covers the importance of integrity and ethical behavior in the insurance industry.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
INS127	Automobile Insurance General Policy Services		Customer service emphasis on automobile insurance general policy services. Covers policy market and special policy status considerations, proof of insurance provision issues, and internal customer service operations. Includes web-based information management tool usage.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
INS128	Automobile Insurance Policy Billing		Customer service emphasis on automobile insurance policy billing procedures. Includes policy coverages, billing inquiries, and payment processing. Emphasis on navigating billing systems and utilizing billing resources and tools for the customer service representative.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
INS129	Automobile Insurance Policy Changes		Automobile insurance policy changes customer service procedures. Emphasis upon information associated	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			with changing existing automobile insurance policy coverage. Covers policy issue and policy status change operations, driver and vehicle addition concerns, and policy cancellation procedures for the customer service representative. Includes title lien holder issues and model call flow identification.				
INS130	Automobile Insurance Policy Coverage		Customer service procedures for managing automobile insurance policy changes and coverage concerns. Emphasis on policy changes and additions, including effective date determination. Covers change of address, principal operator, vehicle replacement and deletion information, as well as expiring policy changes requirements procedures.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
INS131	Automobile Insurance Policy Cancellation and Reinstatement		Customer service procedures for automobile insurance policy cancellation and reinstatement. Covers cancellation authority, cancel request escalation procedures, and cancelled policy premium refund or payment due determination. Includes policy rescission procedure information.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
INS140	Review for the Property and Casualty Insurance Agent Licensing Exam		Preparation for the Property and Casualty Insurance Producer licensing exam required by the State of Arizona Department of Insurance for licensure as a Property/Casualty Insurance Agent. Covers the basic principles and legal parameters of property and casualty	Prerequisites: None.	Licensure in Arizona as a Property and Casualty Insurance Producer requires fingerprinting and a criminal background	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			insurance including homeowners, auto, and business policies. Designed for students with no prior experience in the insurance field as well as those seeking to expand their licensing authority with the State of Arizona.		check as well as a satisfactory score on the official licensing exam. This course includes neither the state exam nor any aspect of criminal background check. INS140 may be repeated for credit.		
INS150	Introduction to Personal Lines Policies		Introduction to personal lines policies for the customer service representative. Includes principles of insurance, contracts, and the role of regulation in the insurance industry. Covers various types of personal insurance including property, liability, dwelling, homeowner, and auto insurance in addition to procedures for rating a policy.	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
INS151	Introduction to Commercial Property Policies		Introduction to commercial property policies for the customer service representative. Includes principles of commercial property, business owner, and commercial insurance for businesses. Covers terminology, forms, and procedures for policy coverages, declarations, exclusions, and endorsements.	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
INS155	Fire Product Procedures		Customer service emphasis on fire product procedures. Covers types of coverage, endorsements, discounts, and eligibility	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			in addition to fair access concerns. Also includes procedures for quoting watercraft and homeowner fire coverage and use of state-specific guidelines and procedures.				
INS200	Principles of Property and Liability Insurance		Basic principles of insurance. Introduction to insurance contracts. Overview of company functions and operations including ratemaking, underwriting, claims, adjusting, and marketing.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
INS205	Personal Insurance		Analysis of personal loss exposures and personal insurance coverages including homeowner's, other dwelling coverages, personal liability, auto, life, health, and government programs.	Prerequisites: A grade of C or better in INS200 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
INS210	Commercial Insurance		Analysis of commercial coverages including property, business income, inland marine, ocean marine, crime, boiler, general liability, auto, and worker's compensation. Analysis of loss exposures and explanation of coverage parts.	Prerequisites: A grade of C or better in INS200 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
INS220	Claim Handling Principles and Practices		Introduction to the claim settlement process including skills for a claims adjuster/examiner. Covers structure of claim departments, handling claims, investigating claims, setting and maintaining loss reserves, and good faith claims. Communication and negotiating techniques are emphasized.	Prerequisites: A grade of C or better in INS100 and INS200.		Occ	LEC 3.0 3.0 3.0
INS225	Auto Claim Practices		Overview of auto accident claims. Covers procedures for resolving vehicle damage claims	Prerequisites: A grade of C or better in INS220.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			including Alternative Dispute Resolution (ADR). Also covers investigating losses, analyzing liability, and costs and benefits of litigation.				
INS241	Risk in an Evolving World		Introduction to the risk management process and its role in identifying and managing exposure to loss. Process for establishing a framework for hazard identification and the use of analytical and technology tools to determine financial impact to business.	Prerequisites: A grade of C of better in INS210.		Occ	LEC 3.0 3.0 3.0
INS242	Holistically Assessing Risk		Examination of various risk identification and assessment techniques implemented by business to control potential loss exposures. Emphasis on understanding the impact of operational decisions and employee actions on losses and steps used to mitigate financial consequences. Detailed analysis of property, liability, management liability, cyber, and loss exposures as well as use of data analytics to manage risk assessment and control.	Prerequisites: A grade of C of better in INS241.		Occ	LEC 3.0 3.0 3.0
INS243	Successfully Treating Risk		Evaluation of risk financing techniques available to organizations to provide funds to pay for losses incurred. Overview of financial elements of insurance, self-insurance, captives, and non-insurance transfers. Examination of non-traditional methods of financing including reinsurance, derivatives, catastrophe bonds, and insurance linked securities and their	Prerequisites: A grade of C of better in INS241.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			implementation to reduce hazard risk and market and credit risks faced by companies.				
INS280	Insurance Studies Internship Preparation		Overview of essential skills necessary for an insurance studies student preparing to enter in the internship environment. Covers essential skills, self-evaluation, and resources available to an insurance student.	Prerequisites: A grade of C or better in INS200 and permission of Department or Division.	INS280 may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0
INS290AA	Internship for Insurance Studies		Insurance work experience in industry. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.	INS290AA may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0
INS290AB	Internship for Insurance Studies		Insurance work experience in industry. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.	INS290AB may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 2.0 2.0
INT100	Interior Design Drafting		Basic manual drafting techniques used in the interior design industry. Focus on industry standards of equipment use, lettering, line work, dimensioning, scaling, and annotation. Introduction and practice of industry-specific drawing types, including floor plans, elevations, sections, details, multi-view projection, and paraline. Brief exploration of hand sketching and Computer-Aided Design (CAD) techniques as they relate to manual drafting	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
INT105	Introduction to Interior Design		Overview of interior design and related professions, including the design process, elements and principles of design, and basic concepts of space planning and furniture	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			layout. Development of design vocabulary relative to architectural details, furnishings, and finishes.				
INT115	Historical Architecture and Furniture		Historical survey of the development of architecture, interiors, furniture, and decorative arts from antiquity to the Industrial Revolution.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Occ	LEC 3.0 3.0 3.0
INT120	Modern Architecture and Furniture		Survey of the development of architecture, interiors, furniture, and decorative arts from the Industrial Revolution to the present. Emphasis is on modern architects and designers.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Occ	LEC 3.0 3.0 3.0
INT122	Digital Visualization for Design		Introduction to raster based rendering techniques utilizing interior design and landscape drawings. Comparison of raster based rendering to vector based rendering and presentation techniques utilizing leading industry software such as Adobe Photoshop and Adobe Illustrator.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
INT126	Sewing for the Home	TEC126	Provides students systemic skills and knowledge to plan and construct draperies, shades, pillows, bedding	Prerequisites: None.	Basic sewing skills are recommend ed.	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and other home furnishings through instructional projects. Emphasizes techniques used in producing textile goods for the home.		INT/TEC12 6 may be repeated for a total of nine (9) credit hours.		
INT140	Introduction to CAD for Interior Design		This class focuses on the development of two-dimensional and three-dimensional spatial development through the use of Computer-Aided Design (CAD), computer-aided design for interior design following American Institute of Architects (AIA) guidelines.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
INT145	Drawing and Rendering		Development of basic freehand sketching and perspective drawing skills. Explores styles and techniques with emphasis on quick sketch and presentation type drawings as used by design professionals.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
INT145AA	Sketching and Visualization		Development of basic freehand sketching and perspective drawing skills. Explores styles and techniques with emphasis on quick sketch and presentation type drawings as used by design professionals.	Prerequisites: None. Corequisites: INT145AB.		Occ	L+L 1.5 3.0 3.0
INT145AB	Rendering		Development of basic digital sketching and perspective drawing skills. Explores styles and techniques with emphasis on quick sketch and presentation type drawings as used by design professionals.	Prerequisites: None. Corequisites: INT145AA.		Occ	L+L 1.5 3.0 3.0
INT150	Color and Design		Introduction to the theory and application of color as related to the elements and principles of design. Light and its effect on color. Emphasis on the development of presentation skills for the field of interior design.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
INT156	Furniture Upholstery I		Techniques of general furniture upholstery, operations of webbing, springing, stuffing, trimming, sewing and cushion making on approved student-selected projects.	Prerequisites: None.	INT156 may be repeated for a total of nine (9) credit hours. Students must provide the furniture piece.	Occ	L+L 3.0 5.0 5.0
INT157	Furniture Upholstery II		Application and use of modern materials and tools, button tufting, channel construction, and special trim effects.	Prerequisites: A grade of C or better in INT156 or permission of Department or Division.	INT157 may be repeated for a total of (9) credit hours. Students must provide the furniture piece.	Occ	L+L 3.0 5.0 5.0
INT158	Furniture Upholstery III		Advanced techniques in upholstering of furniture and other needle-trade items; time and money saving shortcuts in layout; fabric cutting and sewing.	Prerequisites: A grade of C or better in INT157 or permission of Department or Division.	INT158 may be repeated for a total of (9) credit hours. Students must provide the furniture piece.	Occ	L+L 3.0 5.0 5.0
INT159	Furniture Upholstery IV		Advanced techniques of furniture upholstery for students interested in entering the upholstery trade; modern production techniques for sewing; stuffing; and finishing; job estimating; equipment selection and maintenance.	Prerequisites: A grade of C or better in INT158.	INT159 may be repeated for credit. Students must provide the furniture piece.	Occ	L+L 3.0 5.0 5.0
INT160	Fabrics for Interiors		Study of the properties, design, and performance characteristics of interior fabrics. Psychological and cultural impact of textiles on the built environment. Role of the interior designer in working with textiles. Introduction to regulations and codes	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			within the textile industry.				
INT175	Custom Design		Custom design for interiors. Creative problem solving using design theory and process to the custom design of interiors. Emphasis on visualization of concepts through sketching, shop drawings, and basic specifications.	Prerequisites: A grade of C or better in [INT105 and (ARC141 or INT140) and INT122 and (INT145 or (INT145AA and INT145AB))] or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
INT190	Space Planning		Study of creative, critical, analytical and strategic thinking as it relates to human behavior and the built environment. Emphasis on design theory, process, and application. Considerations for space utilization including anthropometrics and ergonomics.	A grade of C or better required in all Prerequisites. Prerequisites: INT105. Prerequisites or Corequisites: ARC141 or INT140.		Occ	L+L 3.0 6.0 6.0
INT211	Interior Materials and Specifications		Properties, performance, maintenance, sustainability and general characteristics of interior finishes. Emphasis on selection, basic estimating, and writing specifications.	A grade of C or better required in all Prerequisites. Prerequisites: ARC141, or INT140, or permission of Instructor. Prerequisites or Corequisites: INT222 or [INT240 or (INT240AA and INT240AB)].		Occ	L+L 3.0 6.0 6.0
INT211AA	Interior Materials		Properties, performance, maintenance, sustainability and general characteristics of interior finishes.	A grade of C or better required in all Prerequisites. Prerequisites: ARC141, or INT140, or permission of Instructor. Prerequisites or Corequisites:		Occ	L+L 1.5 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				INT211AB and [INT222 or [INT240 or (INT240AA and INT240AB)]]].			
INT211AB	Material Specifications		Emphasis on selection, basic estimating, and writing specifications.	A grade of C or better required in all Prerequisites. Prerequisites: ARC141, or INT140, or permission of Instructor. Prerequisites or Corequisites: INT211AA and [INT222 or [INT240 or (INT240AA and INT240AB)]]].		Occ	L+L 1.5 3.0 3.0
INT215	Professional Practices		Marketing, business processes, and ethical issues in the interior design industry. Create materials for use in the profession including a portfolio, resume, and online presence. Includes hands-on experiences within the interior design field.	Prerequisites: A grade of C or better in INT190 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
INT222	Residential Design		Use of design process to create design solutions for residential spaces. Functional and aesthetic analysis of interior components. Includes kitchen and bath design; residential furnishings, fixtures, and equipment (FF&E); and environmental considerations. Refinement of presentation skills.	A grade of C or better required in all Prerequisites. Prerequisites: INT122, [INT145 or (INT145AA and INT145AB)], and INT190. Prerequisites or Corequisites: INT211 or (INT211AA and INT211AB).		Occ	L+L 3.0 6.0 6.0
INT225	History of Decorative Arts		Survey of historical art, furniture and interiors with an emphasis on	Prerequisites: A grade of C or better in		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			decorative arts from various cultures.	INT115 and INT120.			
INT230	Presentation Techniques		Advanced freehand sketching and perspective drawing skills. Explores a variety of styles and techniques with emphasis on presentation type drawings and portfolio development techniques used by design professionals.	A grade of C or better required in all Prerequisites. Prerequisites: [INT145 or (INT145AA and INT145AB)] and (INT140 or ARC141). Prerequisites or Corequisites: INT122 or ARC142.		Occ	L+L 3.0 6.0 6.0
INT235	Universal Design		The study of innovative, strategic, problem-solving and crucial design principles as it pertains to the constructed surroundings and those using space. Prominence will be placed on Universal Design principles and how they relate to the design process and tasks to be performed within the environment. Emphasis on the creative execution through the application of universal design elements and principles.	Prerequisites: A grade of C or better in INT190 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
INT240	Kitchen and Bath Design		Exploration into the specific requirements associated with kitchen and bath design. Emphasis on the design process and computer-based tools for interior design.	A grade of C or better required in all Prerequisites. Prerequisites: INT190 and (ARC141 or INT140). Prerequisites or Corequisites: INT211 or (INT211AA and INT211AB).		Occ	L+L 3.0 6.0 6.0
INT240AA	Bath Design		Exploration into the specific requirements associated with bath	A grade of C or better required in all		Occ	L+L 1.5 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			design. Emphasis on the design process and computer-based tools for interior design.	Prerequisites. Prerequisites: INT190 and (ARC141 or INT140). Prerequisites or Corequisites: [INT211 or (INT211AA and INT211AB)] and INT240AB.			
INT240AB	Kitchen Design		Exploration into the specific requirements associated with kitchen design. Emphasis on the design process and computer-based tools for interior design.	A grade of C or better required in all Prerequisites. Prerequisites: INT190 and (ARC141 or INT140). Prerequisites or Corequisites: [INT211 or (INT211AA and INT211AB)] and INT240AA.		Occ	L+L 1.5 3.0 3.0
INT241	Advanced Kitchen and Bath Design		Advanced approaches to kitchen and bath design using National Kitchen and Bath Association (NKBA) planning guidelines. Mastery in the development of a design concept, producing construction documents and 3-D model drawings, verbally and visually presenting the solution, and processing necessary documentation needed to follow a kitchen and bath project from inception to completion.	Prerequisites: A grade of C or better in INT240, or (INT240AA and INT240AB), or permission of Program Director.		Occ	L+L 3.0 6.0 6.0
INT245	Color Rendering		Development of color rendering techniques. Emphasis on producing two-dimensional and three-dimensional renderings utilizing various media	AAS Degree in Interior Design or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
INT250	Basic Revit	ARC250	Basic skills required to complete architectural drawings with Revit software; simplified overview of the software program and operations gained through completing typical plan, elevation, sectional, and 3D views, using generic walls and related components.	Prerequisites: None. ARC141, or previous AutoCAD/industry experience recommended.	ARC/INT250 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0
INT251	Sketchup I: Introduction to Sketchup	ARC265	Provides students with introductory level instruction utilizing Sketchup rendering software for school and workplace applications. Addresses basic drawing/rendering commands, accessing external drawing files, and plotting through the creation of both three-dimensional schematic and rendered interior and exterior building views.	Prerequisites: None. Previous CAD experience recommended but not required.	ARC265/INT251 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0
INT255	Advanced Custom Design		Covers advanced custom design for interior designers. Uses creative problem solving, design theories, and the design process to visualize custom design elements such as interior materials, furnishings, and details, through three-dimensional digital technology and construction processes.	Prerequisites: A grade of C or better in ARC140, ARC/INT250, ARC265/INT251, (INT145 or (INT145AA and INT145AB)), INT150, INT175, and INT190.		Occ	L+L 3.0 6.0 6.0
INT260	Interior Codes and Regulations		Study of interior building codes, regulations, and standards and their impact on the health, safety, and welfare of the public. Emphasis on occupancy classifications, means of egress, fire protection, finish/furniture standards and testing, and Americans with Disabilities Act Accessibility Guidelines (ADAAG). This course is	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: INT140 or ARC141 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			an exploration of codes and regulations as it pertains to the application of interior design projects.				
INT265	Building Systems		Study of building systems and their impact on the health, safety and welfare of the public	AAS Degree in Interior Design or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
INT266	Current Topics in Interior Design		Presentation of current topics related to the interior design industry. Emphasis on practical applications of historical, technical, business, social, or creative aspects of the field. Includes demonstration or in-depth description and may involve hands-on experience.	Prerequisites: Permission of Program Director.	INT266 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
INT267	Sketchup II: Advanced Rendering Techniques	ARC266	Provides students with advanced instruction utilizing Sketchup, Google Earth, Sandbox and Podium rendering software for school and workplace applications. Creation of photo-realistic rendered three-dimensional interior and exterior building/site views.	Prerequisites: A grade of C or better in ARC265/INT 251 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
INT268	Lighting Design		Study of interior lighting design and its impact on the health, safety and welfare of the public	AAS Degree in Interior Design or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
INT270	Commercial Design		Creation of design solutions for commercial spaces. Focuses on issues affecting the health, safety and welfare of the public	AAS Degree in Interior Design or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
INT271AA	Interior Design Internship		Interior design work experience in the interiors industry. Required to work 80 hours. Supervised and evaluated by a faculty coordinator.	Prerequisites: Permission of Department or Division.	INT271AA may be repeated for a total of four (4) credits with Department Permission.	Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
INT271AB	Interior Design Internship		Interior design work experience in the interiors industry. Required to work 160 hours. Supervised and evaluated by a faculty coordinator.	Prerequisites: Permission of Department or Division.	INT271AB may be repeated for a total of four (4) credits with department permission.	Occ	LAB 2.0 10.0 0.0
INT271AC	Interior Design Internship		Interior design work experience in the interiors industry. Required to work 240 hours. Supervised and evaluated by a faculty coordinator	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 15.0 0.0
INT274AA	Interior Design Study Tour		A tour of the interior design industry outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about this multi-faceted career	Prerequisites: Permission of Department or Division.		Occ	LAB 1.0 5.0 1.0
INT274AB	Interior Design Study Tour		A tour of the interior design industry outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about this multi-faceted career	Prerequisites: Permission of Department or Division.		Occ	LAB 2.0 10.0 2.0
INT274AC	Interior Design Study Tour		A tour of the interior design industry outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about this multi-faceted career	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 15.0 3.0
INT282AA	Service-Learning Experience in Interior Design		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	INT282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0
INT282AB	Service-Learning Experience in Interior Design		Unpaid Service-Learning (SL) experience,	Prerequisites: Permission of Instructor.	INT282AB may be repeated for	Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			completed with approved community partner.		a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.		
INT282AC	Service-Learning Experience in Interior Design		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	INT282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 3.0 3.0 0.0
INT285	Design Portfolio Development		Design, produce, and present a professional portfolio appropriate to the field of Interior Design. Includes material selection and techniques, customer focus, contents and organization, presentation formats, and presentation boards to represent a variety of technical and aesthetic areas of design.	Prerequisites: A grade of C or better in INT240 or (INT240AA and INT240AB) or permission of Program Director.		Occ	LAB 1.0 1.5 1.5
INT290	Advanced Commercial Design		Use of design process to create solutions for medium to large multi-story commercial interiors. Focuses on issues affecting the health, safety, and welfare of the public	Prerequisites: A grade of C or better in INT270.		Occ	L+L 3.0 6.0 6.0
INT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE	be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
INT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				interest or with permission of Instructor.			
INT296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
INT296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
INT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
INT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to maximize student development. COMMON COMPETENCY COURSE				
INT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
IPH101	Introduction to Public Health		Introduction to Public Health introduces students to the broad discipline of public health and how it influences community and individual health status. Includes sciences of public health, historical context of public health, role of various public health agencies, core functions, methods of measurement and evaluation, major public health issues in the United States, public policy, and factors that contribute to individual and community health.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
IPH105	Introduction to Community Health Work		Basic concepts of patient navigation including disease prevention and community health, health insurance navigation, as well as accessing and analyzing health information. Training in assisting individuals with limited health literacy to access the maximum	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			array of benefits from community services, clinical care, and health insurance.				
IPH110	Principles of Health and Behavior Change		Introduction to the social and behavioral science theories used in public health. Provides an overview of health promotion principles and various theories and models developed to change health behavior and promote the health of individuals and societies.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
IPH111	Public Health Across the Lifespan		Introduction to evidence-based research of trends and developments in health throughout the lifespan, dealing with the prenatal period through advanced age. Training in the individual, social, and environmental factors to determine and address health status and health inequities across the lifespan and in public health interventions such as education, policy, and environmental changes.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
IPH112	Community-Based Health Education in Health and Illness		Provides the student with a basic understanding of the application of public health principles to community-based health education interventions. Includes an overview of public health, factors impacting health, health education theories and ethical considerations, the community needs assessment process, the program planning process, health communication, interventions at both the individual and population level.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
IPH115	Introduction to Health Administration and		Introduction to the U.S. health care delivery system including	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	the U.S. Health System		knowledge and skills needed to navigate health care within a health care organization.				
IPH201	Introduction to Epidemiology		Introduction to epidemiology and its role in public health. Training in the application of epidemiologic concepts and methods such as disease causation, terminology, and control principles relating to the spread, prevention, and control of communicable diseases and principles and practices of field investigation.	Prerequisites: A grade of C or better in (MAT206, PSY230 or PSY230WL).		Occ	LEC 3.0 3.0 3.0
IPH205	Chronic Disease Management		Focuses on the prevention and management of chronic disease as a critical priority for health systems around the world. Provides participants with an overview of prevention and management of chronic disease in community settings. Develops practical skills in analyzing and evaluating approaches to chronic disease in a variety of settings. Helps to identify capacities and opportunities for change.	Prerequisites: None.	IPH205 may be repeated for credit.	Occ	LEC 2.0 1.0 1.3
IPH220	Introduction to Mobile Integrated Health Care		Students learn components of patient-centered health care defined specifically for needs of the community. Training in determinants of health, health status indicators, cultural competence, health disparities, and bridging the gap of patient health care needs with social service resources and referrals. Additional topics include legal and ethical issues of mobile care, health care information technology, and insurance and	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			reimbursement programs.				
IPH275	Community Health Work Practicum		Provides students with hands-on experience in the role of the community health worker in the public health field, including guiding patients through various types of health care situations. 45 hours of workplace engagement per credit.	Prerequisites: Completion of six (6) credits of IPH courses with a grade of C or better, and permission of Department/ Division Chair and/or the Program Director.	IPH275 may be repeated for a total of three (3) credit hours.	Occ	LAB 1.0 5.0 0.0
IPH280	Health Education Practicum		Provides students with hands-on experience in the role of the health educator professional in the public health field, including assessing health education needs and developing and delivering health education programs.	Prerequisites: A grade of C or better in [COM270, FON241, (HCR230 or HES210), HTM150, IPH101, IPH110, IPH111, IPH112, and IPH201] or permission of Instructor.		Occ	LAB 3.0 15.0 0.0
IPH285	Health Administration Practicum		Provides students with hands-on experience in the role of the health administrator professional in the public health field, including applying managerial functions within a health care agency.	Prerequisites: A grade of C or better in [(HCR230 or HES210), HSM222, HTM150, IPH101, IPH115, and IPH201] or permission of Instructor.		Occ	LAB 3.0 15.0 0.0
IPH290	Mobile Integrated Health Practicum		Provides students with hands-on experience in the role of the mobile integrated health professional in the public health field, including using evidence-based health care interventions and guiding patients through health care payment systems.	Prerequisites: A grade of C or better in [COM270, FON241, (HCR230 or HES210), HTM150, IPH101, IPH201, and IPH220] or permission of Instructor.		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
IPP198	Careers in Deaf Studies: Observation		Provides experience through observation to the world of work of a professional interpreter. Observation of professional interpreters in a variety of work settings, including but not limited to professional principles, standards and ethics applied to everyday interpreting settings.	Prerequisites: A grade of C or better in IPP205 or permission of Department or Division. Completion of prerequisites within the last three years is required.	IPP198 may be repeated for a total of three (3) credits.	Occ	L+L 1.0 1.0 1.0
IPP205	Introduction to Interpreting		Theories of role, function, responsibilities, and communication strategies of the American Sign Language (ASL)/English interpreter. Covers application and implementation of the National Registry of Interpreters for the Deaf (R.I.D.) and National Association of the Deaf (N.A.D.) Code of Professional Conduct. Additional topics addressed include interpreters functioning as advocates, moral systems vs. ethical systems, standard business practices, and perceptions of consumers.	Prerequisites: A grade of C or better in ASL201 or permission of Department or Division. Completion of prerequisites within the last three years is required.	IPP205 may be repeated for a total of nine (9) credit hours.	Occ	LEC 3.0 3.0 3.0
IPP207	Ethics and Decision Making for ASL/English Interpreters		Guided exploration of factors that impact decisions within interpreted contexts, including strategies, theory, and models for decision making. Application and implementation of the National Association of the Deaf (N.A.D.)-Registry of Interpreters for the Deaf (R.I.D.) Code of Professional Conduct.	A grade of C or better required in all Prerequisites. Prerequisites: ASL201 or permission of Department or Division. Prerequisites or Corequisites: IPP205 or permission of Program Director. Completion of prerequisites	IPP207 may be repeated for a total of eight (8) credit hours.	Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				within the last three years is required.			
IPP208	Advanced American Sign Language Discourse		Advanced study of terminology and discourse in various fields such as medical, judicial, technological, as well as financial and business transactions. Use of specialized terminology/concepts in dialogues, discussions, and narratives. Advanced use of classifiers, structuring of space, and grammatical features of American Sign Language (ASL)	Prerequisites: A grade of B or better in ASL203. Completion of prerequisites within the last three years is required.		Occ	LEC 4.0 4.0 4.0
IPP209	Introduction to Educational Interpreting		Principles, vocabulary, and techniques used specifically in educational (K-12) interpreting and transliterating. Introduces students to the scope of work and issues in primary, secondary, and vocational educational settings. Covers sign systems, technical signs, and appropriate methods of incorporating new signs.	Prerequisites: A grade of B or better in IPP205 or permission of Department or Division. ASL200 recommended.	IPP209 may be repeated for a total of eight (8) credit hours. Repeats 4.0 8.0	Occ	LEC 2.0 2.0 2.0
IPP210	Research in Interpreting		Overview of theory and methodological practice in Interpretation with particular attention to research methods. Emphasis on development of critical thinking skills through active participation in the research process.	Prerequisites: A grade of C or better in COM225, CRE101, ENG102, and IPP207.	IPP210 may be repeated for a total of nine (9) credit hours. Repeats 3.0 9.0	Occ	LEC 3.0 3.0 3.0
IPP211	Preparation for Interpreting		Development of pre-interpreting skills, cognitive processing and analysis of interpreting process theories. Pre-interpreting skills include memory, cloze, identifying meaning, paraphrasing and summarization. Source language analysis and	Prerequisites: Acceptance into the Interpreter Preparation Program or permission of Department or Division.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			target language equivalents emphasized. Analysis of texts and contexts of monologues.				
IPP215	ASL to English Consecutive Interpreting		Sequential development of consecutive interpreting skills from American Sign Language (ASL) to English. Source language analysis and target language equivalents emphasized. Analysis of texts and contexts of naturally occurring monologues, guidance for discovering personal filters, practice of skills, techniques for self and peer evaluations, and application of theoretical models.	Prerequisites: (Acceptance into the Interpreter Preparation Program or permission of Department or Division) and a grade of B or better in IPP211.		Occ	L+L 2.0 3.0 3.0
IPP216	ASL to English Simultaneous Interpreting		Sequential development of simultaneous interpreting skills from American Sign Language (ASL) to English. Source language analysis and target language equivalents emphasized. Analysis of texts and contexts of naturally occurring monologues from different genres with increasing length and difficulty, practice of skills, techniques for self and peer evaluations, and application of theoretical models.	Prerequisites: A grade of B or better in IPP215 and permission of Program Director.	IPP216 must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in Interpreter Preparation programs. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP216 and should consult with an advisor	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					for guidance.		
IPP218	English to ASL Consecutive Interpreting		Sequential development of consecutive interpreting skills from English to American Sign Language (ASL). Source language analysis and target language equivalents emphasized. Analysis of texts and contexts of naturally occurring monologues, guidance for discovering personal filters, practice of skills, techniques for self and peer evaluations, and application of theoretical models.	Prerequisites: (Acceptance into the Interpreter Preparation Program or permission of Department or Division) and a grade of B or better in IPP211. IPP215 suggested but not required.		Occ	L+L 2.0 3.0 3.0
IPP219	English to ASL Simultaneous Interpreting		Sequential development of simultaneous interpreting skills from English to American Sign Language (ASL). Source language analysis and target language equivalents emphasized. Analysis of texts and contexts of naturally occurring monologues from differing genres with increasing length and difficulty, practice of skills, techniques for self and peer evaluations, and application of theoretical models.	Prerequisites: A grade of B or better in IPP218, and permission of Program Director. Completion of prerequisites within the last three years is required.	IPP219 must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in Interpreter Preparation programs. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP219 and should consult with an advisor for guidance.	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
IPP220	Interactive Interpreting I		Sequential development of interactive interpreting skills from English to American Sign Language (ASL) and from ASL to English. Perform source language analysis, apply cognitive processing techniques, and produce target language equivalents. Analysis of texts and contexts of naturally occurring dialogues, practice of skills, techniques for self and peer evaluations, and application of theoretical models.	Prerequisites: A grade of B or better in IPP211 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Occ	L+L 3.0 4.0 4.0
IPP221	Interactive Interpreting II		Continued development of interactive interpreting skills from English to American Sign Language (ASL) and from ASL to English. Perform source language analysis, apply cognitive processing techniques, and produce target language equivalents. Analysis of texts and contexts of naturally occurring dialogues, practice of skills, techniques for self and peer evaluations, and application of theoretical models.	Prerequisites: A grade of B or better in IPP220, and permission of Program Director. Completion of prerequisites within the last three years is required.	IPP221 must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in Interpreter Preparation programs. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP221 and should consult with an advisor for guidance.	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
IPP229	Interpreter Preparation Internship Seminar		Classroom portion of the Interpreter Preparation Program internship. Emphasizes the blend of job-related activities including career exploration, employment application procedures, interpersonal skills, and on-the-job problems.	Prerequisites: Acceptance into the Interpreter Preparation Program and/or program director approval. Corequisites: IPP230AA or IPP230AB.	IPP229 may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 0.0
IPP230AA	Interpreter Preparation Program Internship		Laboratory portion of the Interpreter Preparation Program seminar. Eighty (80) clock hours of work required. Practical experience in settings such as educational, rehabilitation, community service centers, and agencies serving children, adolescents, and/or adults who are deaf or hard of hearing. Designed to provide students with the opportunity to synthesize practical and academic experiences gained during the in-classroom portion of the program. Site, supervision, and plan of activity mutually agreed upon by the student and instructor. Capstone experience for Associate in Applied Science (AAS) degree students.	Prerequisites: Acceptance into the Interpreter Preparation Program and Program Director approval. Corequisites: IPP229.	IPP230AA must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in Interpreter Preparation programs. IPP230AA may be repeated for a total of four (4) credit hours. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP230AA and should consult with an advisor for guidance.	Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
IPP230AB	Interpreter Preparation Program Internship		Laboratory portion of the Interpreter Preparation Program Seminar. One hundred sixty (160) clock hours of work required. Practical experience in settings such as educational, rehabilitation, community service centers, and agencies serving children, adolescents and/or adults who are deaf or hard of hearing. Designed to provide students with the opportunity to synthesize practical and academic experiences gained during the in-classroom portion of the program. Site, supervision, and plan of activity mutually agreed upon by the student and instructor. Capstone experience for Associate in Applied Science (AAS) degree students.	Prerequisites: Acceptance into the Interpreter Preparation Program and Program Director approval. Corequisites: IPP229.	IPP230AB must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in Interpreter Preparation programs. IPP230AB may be repeated for a total of four (4) credit hours. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP230AB and should consult with an advisor for guidance.	Occ	LAB 2.0 10.0 0.0
IPP242	Educational Interpreting Skills		Skill development and application of techniques used specifically in educational (K-12) interpreting and transliterating. Covers sign systems, technical signs, and methods of non-standard sign incorporation.	Prerequisites: A grade of B or better in (IPP209 and IPP211) and permission of Program Director.	IPP242 must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Completion (CCL) in Interpreter Preparation programs. IPP242 may be repeated for a total of four (4) credit hours. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP242 and should consult with an advisor for guidance.		
IPP250AA	Special Topics: Interpreter Preparation		Explores a special topic related to interpreter preparation. Topics vary and include concepts relevant to those pursuing career in (American Sign Language) ASL/English Interpreting and Transliterating	Acceptance into the Interpreter Preparation Program or permission of Program Director.	IPP250AA may be repeated for credit	Occ	L+L 1.0 1.0 1.0
IPP250AB	Special Topics: Interpreter Preparation		Explores a special topic related to interpreter preparation. Topics vary and include concepts relevant to those pursuing career in (American Sign Language) ASL/English Interpreting and Transliterating	Acceptance into the Interpreter Preparation Program or permission of Program Director.	IPP250AB may be repeated for credit	Occ	L+L 2.0 2.0 2.0
IPP250AC	Special Topics: Interpreter Preparation		Explores a special topic related to interpreter preparation. Topics vary and include concepts relevant to those pursuing career in (American Sign Language) ASL/English	Acceptance into the Interpreter Preparation Program or permission of Program Director.	IPP250AC may be repeated for credit	Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Interpreting and Transliterating				
IPP250BA	Special Topics: Interpreter Preparation		Explores a special topic related to interpreter preparation. Topics vary and include concepts relevant to those pursuing a career in American Sign Language (ASL)/English Interpreting and Transliterating.	Prerequisites: Acceptance into the Interpreter Preparation Program or permission of Program Director.	IPP250BA may be repeated for credit.	Occ	L+L 0.5 0.5 0.5
IRW101	Ironworking: Orientation		Overview of the Ironworker labor history, green construction, work place issues and sexual harassment. Basic safety, measuring, tools and rigging. Types of ironwork and welding.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 3.0 3.0 3.0
IRW102	Safety and Health for Ironworking		Safety, health, and accident prevention in the construction work environment related to ironworking. Proper erection, use, and dismantling of scaffolds. Selection, inspection, and use of fall protection including safe operation of forklifts and First Aid/Automated External Defibrillator/Cardiopulmonary Resuscitation (First Aid/AED/CPR).	Prerequisites: Registered Apprentice status with the Ironworkers Apprenticeship and Training Program or permission of Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
IRW103	Science, Rigging and Hoisting		Science and mechanics related to the plumbing trade. Properties of water and matter, hydraulic and pneumatic mechanics, metals and alloys. Corrosion. Rigging procedures including the use of fiber and wire rope for knots, hitches and slings. Use of hoisting equipment, and cranes. Hoisting with helicopters. Safe and proper loading and unloading of hoisting equipment. Intermediate fitting projects and mathematical applications.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
IRW104	Ironworking: Blueprint Reading		Basic elements of construction drawings including characteristics of various types of blueprints for ironworkers. Drawing interpretation, general abbreviations, acronyms, and basic symbols recognition and drawing classifications.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.5 1.5 1.5
IRW105	Ironworking III: History		Historical factors, events and activities leading to the founding of the International Ironworkers Labor Union. Circumstances and events between 1906-1912 related to labor unionization. Conspiracy trials involving unionization of Ironworkers, Carpenters, Machinists and the Building Trades. World War II and postwar struggles related to the labor movement. Factors of labor movement growth. The Occupational Health and Safety Administration (OSHA), nuclear power, foreign production of steel, and political influences relating to unionization in the 21st Century	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
IRW112	Lead Hazard Training		Background of lead and its uses including health effects caused by lead exposure. Occupational Safety and Health Administration (OSHA) regulations that apply to lead exposure, hazard communication and workers legal rights. Personal protective equipment (PPE) and work methods on steel structures. General site safety, work practices and confined space entry.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross References	Description	Requisite	Course Note	Subject Type	Credits Periods Load
IRW120	Structural Steel Erection I		History and manufacture of iron and steel. Tools, equipment, materials, and trade procedures. Safety precautions. ;Raising gang members, erecting columns, beams, girders, trusses, nets, and railings. Fastening components.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 4.0 4.0
IRW121	Structural Steel Erection II		Tools, equipment and trade procedures. Advanced structural steel welding and burning. Mobile and tower cranes. Bolted, riveted and pinned connections. Bar joists, and bridging. Detailing stairways, ladders, channel bucks and grating.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 4.0 4.0
IRW122	Cranes		Cause of fatalities. Load charts, wire rope, capacity, hook loads. Ground pressure, minimum and maximum clearances, list and trim. Floating cranes.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
IRW130	Reinforcing: Rebar		Reinforced concrete; manufacture of reinforcing steel; tools, ties, and safety; types of reinforcing used in building construction; bridge construction; purpose and location of reinforcing steel in concrete; fabricating, unloading, handling, and storing, reinforcing steel, reading engineering and placing drawings.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 4.0 4.0
IRW131	Reinforcing: Post Tensioning Monostrand		Principles, theory, and terminology of post-tensioning. Stressing equipment, hand tools, document control. Installation of monostrand post-tensioned floor systems, tendons. Troubleshooting, encapsulated systems,	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			barrier cables, slabs-on-ground, and field placement drawings.				
IRW142	Conveyors and Industrial Maintenance		History of conveyors, safety and tools. Overview and installation of overhead and floor conveyor systems. Bulk handling, conveyor drawings and maintenance procedures.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
IRW150	Rigging I		Rigging history, principles and blocks. Rigging safety. Fabric and wire rope, steel chain, sockets, slings, rigging hardware. Slicing techniques. Reeving systems and personnel requirements.	Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 4.0 4.0
IRW151	Rigging II		Safety rules and information for operation of rigging equipment; operation and assembly of cranes; examples of rigging jobs; use of helicopters in construction; miscellaneous rigging equipment; skids and rollers; access structures.	Prerequisites: A grade of C or better in IRW150 and apprentice status, or permission of the Apprenticeship Coordinator.		Occ	LEC 3.0 3.0 3.0
IRW160	Architectural Ironworking I		Curtain, window wall systems, skylights, storefronts, entranceways, cable walls, sealants, glazing, rails, doors, anchors and fasteners, stairs and ladders, catwalks, grating, fence and guardrails, detention systems, testing, installation and erection.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 4.0 4.0
IRW161	Architectural Ironworking II		Introduction to layout, basic tools, mathematics, automatic levels, lasers, theodolites and transits including total station.	Prerequisites: A grade of C or better in IRW160 and registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				p Coordinator.			
IRW175	Precast Concrete, Metal Buildings, and Scaffolding		Preconstruction planning including loading, method of transportation, timing, tolerances, safety, and quality control. Handling, erection and storage including hazards awareness. Use of cranes, hoists, and other specialized equipment. Pre-engineered metal building systems, site evaluation and preparation. Framing systems, insulation, walls, metal roofing, repairs and renovations. Basic components of scaffolding, loading, erecting and dismantling of scaffold systems.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
IRW296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				with permission of Instructor.			
IRW296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
IRW296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
IRW296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
IRW298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to	Prerequisites: Permission of Program	Course Attribute(s): COMMON COMPETE	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Director or Instructor.	NCY COURSE		
IRW298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	LAB 2.0 2.0 0.0
IRW298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETE NCY COURSE	Occ	LAB 3.0 3.0 0.0
ISP105	Computer Information Systems		Overview of computer technology, concepts, terminology, and the role	Prerequisites: None.		CLK	52

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of computers in business and society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes uses of application software and the internet for efficient and effective problem solving. Exploration of relevant emerging technologies.				
ISP108B	Keyboarding II		This keyboarding skills course teaches students to use the computer keyboard to enter letters, numbers, and symbols. If students are already experienced typists, they will learn to type faster and more accurately (25 WPM @ 98% accuracy).	Prerequisites: None.		CLK	36
ISP116	Computer Foundations		Students learn computer concepts, how to navigate an operating system, control programs, manage files locally and in the Cloud, and search the internet. Students will establish email habits necessary to accomplish workplace success. In addition, students will learn all the necessary applications needed for student success.	Prerequisites: None.		CLK	24
ITA101	Elementary Italian I		Introduction to basic grammar, pronunciation, and vocabulary of Italian. Development of speaking, listening, reading, and writing skills. Study of the Italian culture	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: ITA 1101 General Education Designation : Global Awareness - [G]	Acad	LEC 4.0 4.0 4.0
ITA101AA	Elementary Italian I		Basic grammar, pronunciation and	Prerequisites: None.	Course Attribute(s):	Acad	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			vocabulary of the Italian language. Includes the study of Italian culture. Practice of listening, speaking, reading and writing skills		General Education Designation : Global Awareness - [G]		
ITA102	Elementary Italian II		Continued development of speaking, listening, reading, and writing skills in Italian. Study of Italian culture.	Prerequisites: A grade of C or better in ITA101 or ITA101AA or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): Arizona Shared Unique Number SUN#: ITA 1102 General Education Designation : Global Awareness - [G]	Acad	LEC 4.0 4.0 4.0
ITA102AA	Elementary Italian II		Continued study of grammar and vocabulary along with the study of Italian culture. Emphasis on speaking, reading and writing skills.	Prerequisites: A grade of C or better in ITA101 or ITA101AA or permission of Department or Division. Completion of prerequisites within the last three years is required.	General Education Designation : Global Awareness - [G]	Acad	L+L 4.0 5.0 5.0
ITA115	Beginning Italian Conversation I		Conversational Italian. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in Italian. Designed for students seeking speaking and listening abilities with little emphasis on grammar	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ITA116	Beginning Italian Conversation II		Continued development of speaking and listening skills for effective communication in Italian.	Prerequisites: A grade of C or better in ITA115 or permission of Department or Division. Completion of prerequisites within the last		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				three years is required.			
ITA201	Intermediate Italian I		Review of essential grammar of the Italian language and study of the Italian Culture. Continued practice and development of reading, writing, and speaking skills.	Prerequisites: A grade of C or better in ITA102 or ITA102AA or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: ITA 2201	Acad	LEC 4.0 4.0 4.0
ITA202	Intermediate Italian II		Continued development of Italian language skills and continued study of the Italian culture.	Prerequisites: A grade of C or better in ITA201 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: ITA 2202	Acad	LEC 4.0 4.0 4.0
ITA225	Intermediate Italian Conversation I		Continued development of skills in conversational Italian for effective communication. A review of grammar and development of vocabulary. Intensified study of Italian life and culture.	Prerequisites: A grade of C or better in ITA102 or ITA102AA or ITA116 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
ITA226	Intermediate Italian Conversation II		Continued development of skills in conversational Italian for effective communication. A review of grammar including the extensive use of grammatical concepts. Continued development of vocabulary. Intensified study of Italian life and culture.	Prerequisites: A grade of C or better in ITA201 or ITA225 or permission of Department or Division. Completion of prerequisites		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				within the last three years is required.			
ITA265	Advanced Italian I		In-depth exploration of selected themes related to Italian culture. Involves reading selections from Italian literature, writing reports, and discussion in Italian. Emphasis on enhancing reading, writing and speaking skills.	Prerequisites: A grade of C or better in ITA202 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
ITA296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
ITA296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to	Prerequisites: Completion of at least twelve (12) college credits		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the career objectives of the students.	minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
ITA296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career interest or with permission of the Instructor.			
ITA296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0
ITA298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to maximize student development. COMMON COMPETENCY COURSE				
ITA298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
ITA298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
ITD200	The Physical Child: Birth to Age Three		Examines the physical aspects of child growth and development in the first three years of life in the context of contemporary communities. Includes nutrition and feeding, health and safety, motor skills and exercise,	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			neurological development, and identification of developmental delay.				
ITD201	Attachment and Relationships		Explores the roots of human relationships in the attachment process. Considers how children become skilled at interaction with adults and peers in varied social contexts. Includes perspectives of Mahler, Erikson, and Magda Gerber.	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
ITD202	Cognition and Communication		Examines how thinking emerges in the sensorimotor period and how language is acquired. Considers the role of people and environments in facilitating cognition, communication and language.	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
ITD204	Supporting Family Development		Practical and professional ways to foster communication with family members and relationships within families of infants and toddlers. Considers sensitivity to contemporary family differences and respect for confidentiality.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
ITD210	Early Attachments, Relationships, and Families: Birth to Age Three		Explores the attachment process and relationships within families. Considers contemporary social contexts where children develop a concept of self, self-regulation, and interaction skills with children and adults. Examines social-emotional development, societal stresses, and supportive professional roles and responsibilities.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
ITD220	Cognition and Communication: Birth to Age Three		Examines the cognitive development and language acquisition of infants and toddlers.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Considers the role of people and daily environments on development. Also covers disabilities and developmental delays as well as major theories and research in the field.				
ITH150	Survey of Contemporary Italy		An overview of modern Italian literary and artistic life from World War II to present; covers Italian cultural life and institutions, including political, social, and economic structures, and a comparison to American culture.	Prerequisites: None.	ITH150 is taught in English.	Acad	LEC 3.0 3.0 3.0
ITS100	Information Security Awareness		Computer and network security topics, including network communication. Includes security policy, implementation of basic security measures, the importance of backups and the value of protecting intellectual property. Real-life examples and practical projects to reinforce the need for computer security.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
ITS110	Information Security Fundamentals		Fundamental concepts of information technology security. Topics include authentication methods, access control, cryptography, Public Key Infrastructure (PKI), network attack and defense methods, hardening of operating systems and network devices, securing remote access and wireless technologies and securing infrastructures and topologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet	Prerequisites: A grade of C or better in CIS126DL, or CIS126RH, or permission of Program Director. Corequisites: BPC270 or MST150++.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Protocol (TCP/IP) and security concepts and Microsoft (MS) Windows and Linux Administration.				
ITS120	Legal, Ethical and Regulatory Issues		Exploration of legal and ethical issues unique to information security. Analysis of professional ethical codes and their application to information security practitioners. Federal and state laws as they relate to information security.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
ITS130	Operating System Security		In-depth examination of operating system security including Transmission Control Protocol/ Data Encryption Standard (DES), Triple Data Encryption Standard (3DES), Advanced Encryption Standard (AES), Pretty Good Privacy (PGP), and other encryption technologies (TCP/IP), Internet Protocol Security (IPSec) and Cisco Internetwork Operating System (IOS), Microsoft Windows, Linux and Mac OSX Security. Procedures to defend networks against attacks and recovery from network disasters. Web server security. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and MS Windows and Linux Administration	Prerequisites: A grade of C or better in ITS110 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
ITS140	Network Security		Examination of techniques used to defend network security. Design and implementation of	Prerequisites: A grade of C or better in (ITS110 and ITS130) or		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			<p>devices including firewalls and Intrusion Detection Systems (IDSs) and Virtual Private Networks (VPNs). Risk analysis and security policies methodologies.</p> <p>Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and MS Windows and Linux Administration</p>	permission of Instructor.			
ITS240	Ethical Hacking and Network Defense		<p>Preparation for the EC-Council Certified Ethical Hacking examination. In-depth exploration of how to effectively protect computer networks from risks ranging from malicious infiltration to cyber-warfare. Includes examination of ethical hacking, relevant tools and methodologies, and its importance to network security. Resources to identify new computer network vulnerabilities and counter security strategies will be discussed as well as an overview of relevant computer crime laws and penalties.</p>	<p>Prerequisites: A grade of C or better in ITS110, or CNT205, or CIS270, or permission of Instructor.</p>		Occ	L+L 3.0 4.0 4.0
ITS291	Computer Forensics Foundations		<p>Development of foundational computer forensic skills. Introduction to preserving, identifying, extracting, interpreting, and documenting computer data as part of a forensically sound analysis. Examination of the physical and logical structure of hard drives. Study of the logical structure of Windows-based file systems and</p>	<p>Prerequisites: A grade of C or better in BPC170 and ITS110 or permission of Instructor.</p>		Occ	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			common applications. Introduction to the logical structure of Unix/Linux-based file systems and common applications of commercial forensic tools				
ITS292	Advanced Computer Forensics		Advanced computer forensics analysis techniques with commercial tools. Introduction to open-source forensic tools. Emphasis on data recovery from complex applications and media types. Study of the logical structure of Unix/Linux-based file systems. Advanced search techniques. Analysis of unallocated space, compound files, and NTFS artifacts	Prerequisites: A grade of C or better in ITS291 or permission of Instructor.		Occ	L+L 4.0 5.0 5.0
ITS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
JPH245	Traditional and Modern Japanese Culture		Survey of traditional and modern Japanese culture in context. Intellectual, spiritual, and artistic traditions of Japan will be examined with an eye on their popular-culture manifestations. The course, conducted in English, will consist of	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			lectures, discussions, as well as oral and written reports.		: Humanities, Arts and Design - [HU]		
JPN100	Introduction to Japanese		Brief introduction to the writing and speaking of Japanese. Emphasis on Japanese syllabic writing systems and foundational vocabulary.	Prerequisites: None.	JPN100 may be repeated for a total of four (4) credit hours.	Acad	LEC 1.0 1.0 1.0
JPN101	Elementary Japanese I		Basic grammar, pronunciation, and vocabulary of Japanese. Study of Japanese culture. Development of speaking, listening, reading and writing skills	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: JPN 1101	Acad	L+L 5.0 6.0 6.0
JPN102	Elementary Japanese II		Continued study of basic grammar, pronunciation and vocabulary of Japanese. Study of the Japanese culture. Intensive practice in oral communication and development of reading and writing skills.	Prerequisites: A grade of C or better in JPN101 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: JPN 1102	Acad	L+L 5.0 6.0 6.0
JPN115	Beginning Japanese Conversation I		Conversational Japanese. Basic sentence structure, pronunciation, and vocabulary necessary to develop speaking ability in Japanese. Designed for students seeking speaking and listening abilities, with little emphasis on grammar, reading, or writing	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
JPN116	Beginning Japanese Conversation II		Continuation of conversational Japanese for survival in everyday business and social	Prerequisites: A grade of C or better in JPN115.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			situations. Expansion of vocabulary and sentence structure through aural/oral practice. Practice in reading and writing Kana.	Completion of prerequisites within the last three years is required.			
JPN201	Intermediate Japanese I		Expansion of sentence structures through oral/aural practice. Increased emphasis on reading and writing in Japanese and study of Japanese culture.	Prerequisites: A grade of C or better in JPN102 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: JPN 2201	Acad	L+L 5.0 6.0 6.0
JPN202	Intermediate Japanese II		Extensive review of Japanese grammar; development of vocabulary and idiomatic expressions through reading and writing. Continued practice of oral communication skills and study of Japanese culture.	Prerequisites: A grade of C or better in JPN201 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: JPN 2202	Acad	L+L 5.0 6.0 6.0
JPN296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites:		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
JPN296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
JPN296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				<p>obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.</p>			
JPN296WD	Cooperative Education		<p>Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.</p>	<p>Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with</p>		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of the Instructor.			
JPN298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
JPN298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
JPN298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
JRN101	Grammar and Style for Journalists		Focus on the fundamentals and application of grammar, punctuation, spelling, style and structure necessary in professional writing fields, including media writing.	Prerequisites: A grade of C or better in ENG091 or eligibility for ENG101 as indicated by appropriate English placement.	JRN101 may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 2.0 2.0
JRN105	Introduction to Journalism		Survey of the field of journalism including what journalists do, their role in society, ethical practices, history, current trends, and the future of the profession. Overview of mass communication media, including newspapers, magazines, radio, television, and the Internet.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
JRN125	Photo Editing		Basic techniques of photo composition and editing for media reproduction. Teach how to crop and size photographs. Use of photo editing and design software in paginating a newspaper page on the computer. The effect and impact of color vs. black and white photographs. Basic techniques of photo essay, photo page and photo story and/or multimedia news products and the impact of photos on typography.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
JRN133	Development of Small Publications		Design, plan and write newsletters, brochures, and advertisements.	Prerequisites: None. Computer		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Desktop computer production and paste-up techniques.	experience and BPC138AA suggested but not required.			
JRN201	News Writing		Writing and producing news for the media. Associated Press (AP) editing style, writing skills, and organizational structure for news.	Prerequisites: A grade of C or better in ENG101 or ENG107.		Occ	LEC 3.0 3.0 3.0
JRN205	Copyediting		Focus on copy editing skills and techniques needed in professional communication industries. Specifically, the basics of grammar of style, interaction of word and image, the process of aggregation and curation, and an introduction to ethics and industry standards are covered. Writing for clarity, completeness, and conciseness is emphasized.	Prerequisites: A grade of C or better in ENG101 or permission of Instructor. JRN201 recommended for Journalism students.		Occ	L+L 3.0 3.0 3.0
JRN208	Media Law		Basic legal concepts for print, broadcast, online, and photojournalism including constitutional legal protections and the Freedom of Information Act (FOIA). Focus on access to courts, public records, public meetings, subpoenas, shield laws, prior restraint, libel, defamation, privacy, source confidentiality, intellectual property, obscenity, and Federal Communications Commission (FCC) regulations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
JRN210	News and Media Production		Hands-on experience working in a college newsroom developing content as reporters, photographers, editors, and other roles on the student news team. Roles and responsibilities vary	Prerequisites: A grade of C or better in JRN201 or [(ENG101 or ENG107) and permission of Program Director or Instructor].	JRN210 may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			depending on student goals.				
JRN212	Writing for Broadcasts		Broadcast writing techniques emphasizing grammar, style and structure for various communication platforms. Focus on media reporting including writing scripts, interviewing skills, live broadcasting techniques, production overview and journalistic ethics.	Prerequisites: A grade of C or better in ENG101 and (JRN201 or permission of Instructor).		Occ	L+L 3.0 5.0 5.0
JRN213	Writing for Online		Focus on writing content applying fundamentals of style, grammar, and structure for media online.	Prerequisites: None. JRN201 recommended for Journalism students.		Occ	LEC 3.0 3.0 3.0
JRN216	Current Topics in Media Practice		Theory, training and experience in a specific area of journalism, with a focus on specialized types of journalism and cutting-edge and innovative practices.	Prerequisites: A grade of C or better in JRN201. JRN215 recommended but not required.	JRN216 may be repeated with different topics for a total of nine (9) credit hours. Speak to a Program Director for details.	Occ	LAB 1.0 1.0 0.0
JRN225	Photojournalism		Reporting the news as a photojournalist, with emphasis on the development and creation of news photographs. Experience in shooting, editing and transmitting digital photos using professional photo editing and design software.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
JRN226	Introduction to Multimedia Journalism		Overview to multimedia journalism including video and audio for news websites and TV news, as well as other multimedia platforms. Focus on conceptualizing story ideas, identifying and interviewing sources,	Prerequisites: A grade of C or better in JRN201.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and producing stories using multimedia. Introduction to current technologies for recording audio and video. Laws and ethics as applicable to multimedia journalism will also be explored.				
JRN231	Sports Writing		Writing sports stories for the print media. Composing at the computer keyboard. Associated press editing style, writing skills, and organizational structure for sports news.	Prerequisites: A grade of C or better in JRN201 or permission of Instructor.		Occ	L+L 3.0 3.0 3.0
JRN232	Community Reporting		Focus on the knowledge and skills needed to conduct reporting that is industry ready. Cover a community beat and write and use multimedia skills to publish the stories.	Prerequisites: A grade of C or better in JRN201.		Occ	LAB 3.0 3.0 0.0
JRN234	Feature Writing		Emphasis on crafting stylized human interest stories for publications. Includes research, interviewing, writing techniques, editing and professional concerns. Includes best practices for writing features for traditional and digital media.	Prerequisites: A grade of C or better in ENG101 or ENG107, or permission of Instructor.		Occ	L+L 3.0 3.0 3.0
JRN236AA	Public Relations Internship		Public relations work experience.	Prerequisites: Permission of Program Director.	JRN236AA may be repeated for a total of six (6) credit hours.	Occ	LAB 1.0 1.0 0.0
JRN236AB	Public Relations Internship		Public relations work experience.	Prerequisites: Permission of Program Director.	JRN236AB may be repeated for a total of six (6) credit hours.	Occ	LAB 2.0 2.0 0.0
JRN236AC	Public Relations Internship		Public relations work experience.	Prerequisites: Permission of Program Director.	JRN236AC may be repeated for a total of six (6) credit hours.	Occ	LAB 3.0 3.0 0.0
JRN238	Business Journalism		Focus on reporting for and about business.	Prerequisites: A grade of C		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Explores the nature and functions of business and the roles of business journalists. Examines the various media and situations within which business journalism operates.	or better in JRN201 and GBS151.			
JRN240AA	Journalism Internship		Journalism work experience with a newspaper or other news organization. 80 hours of designated work per credit. Maximum of 6 credits allowed	Prerequisites: A grade of C or better in JRN210.		Occ	L+L 1.0 1.0 0.0
JRN240AB	Journalism Internship		Journalism work experience with a newspaper or other news organization. 80 hours of designated work per credit. Maximum of 6 credits allowed.	Prerequisites: A grade of C or better in JRN210.		Occ	L+L 2.0 2.0 0.0
JRN240AC	Journalism Internship		Journalism work experience with a newspaper or other news organization. 80 hours of designated work per credit. Maximum of 6 credits allowed	Prerequisites: A grade of C or better in JRN210.		Occ	L+L 3.0 3.0 0.0
JRN290	Publications Portfolio		This course is organized around the development of a portfolio of published stories for submission to a jury of professional journalists, active and retired, that supports the district's occupational journalism certificate. Passing requires approval from two-thirds of the jury.	Prerequisites: None.		Occ	LAB 1.0 1.0 1.0
JRN296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
JRN296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
JRN296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
JRN296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
JRN298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
JRN298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE				
JRN298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
LAS101	Introduction to Law		Legal terminology and basic legal principles in the areas of tort, contract, and criminal law. Interrelationships among lawyers, the court system, and law enforcement and administrative agencies. Development of a case for trial, adjudication, and post-verdict procedures in the civil and criminal systems. Suggested but not required: ENG101 and CRE101, or exemption by score on the reading placement test (ASSET)	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
LAS107	The Paralegal Profession		Focus on the role, responsibilities, and ethical standards of a paralegal. Provides an overview of the legal system and the role of the paralegal in the legal system. Emphasis on professional development and job-search strategies.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
LAS109	Civil Procedures I		Pretrial procedural issues in both Arizona and the federal system.	Prerequisites: Acceptance into the		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Emphasis on Arizona Rules of Civil Procedure 1-37, 41, 55, 56, and 72-76. Coverage of applicable time limits, filing requirements, and proficiency in locating appropriate provisions in the Arizona Rules of Civil Procedure. Drafting of pleadings and motions and the application of procedural rules pertinent to the early stages of civil litigation.	Paralegal Studies program. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LAS101 and LAS107 and (BPC110 or CIS105 or permission of Program Director).			
LAS110	Civil Procedures II		Application of the procedural aspects of discovery, trial preparation, and post-trial work as part of a litigation team. Emphasis on practical concerns, such as interviewing of witnesses; preparation of discovery documents, exhibits, and transmittal memoranda; summarizing and indexing depositions; organization of files; preparation of trial notebooks; and participation in a mock trial.	Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS115	Criminal Trial Procedure		Procedural aspects of the criminal trial process in Arizona state courts from preliminary proceedings through trial. Emphasis on application of the rules of criminal procedure and preparation of common trial documents by paralegals. Documents include the charging instrument, pre-trial motions, and jury instructions.	Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS131	Legal Writing		The use of proper grammar, punctuation, and spelling in the construction of sentences and the	A grade of C or better required in all Prerequisites. Prerequisites		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development of paragraphs. Use of case briefs to study effective writing and analytical techniques. Analysis and application of the writing process to produce well-written documents commonly used in the practice of law.	or Corequisites: LAS109 and (BPC110 or CIS105 or permission of Program Director).			
LAS203	Ethics and Professional Practice		Rules of professional responsibility and ethical requirements with an emphasis on their application to legal assistants. Sources of power to regulate the practice of law. Issues related to unauthorized practice of law. Examination of professionalism in the legal profession	Prerequisites: A grade of C or better in LAS131 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS204	Contract Law		Examination of contracts and their regulation by the Uniform Commercial Code. Review and drafting of basic agreements.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LAS109 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS208	Probate		Emphasis on various ways in which property can be held and passed on. Requirements for valid wills and trusts. Steps involved in estate administration and appropriate forms to be used. Includes drafting basic wills and simple trusts.	Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS211	Legal Research		Use of print and electronic media to locate public documents, statutes, administrative regulations, and cases from county, state, and federal jurisdictions. Reading and interpreting research results.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LAS109 and (BPC110 or		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Shepardizing. Use of proper citation forms.	CIS105 or permission of Program Director).			
LAS212	Tort Law		Basic elements of negligence, strict liability, intentional torts; defenses; damages; insurance coverage. Evaluation of records and personal injury claims; review of insurance policies; settlement brochure; preparation of case intake memorandum	Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS214	Business Organizations		Analysis and evaluation of business organizations with practical application of the law to analyze the utility, form, and function of Sole Proprietorships, General Partnerships, Limited Partnerships, Limited Liability Companies, and Corporations. Preparation of documents to create the most effective and feasible business organization under a given set of circumstances.	Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS217	Family Law		Legal analysis of marriage, dissolution of marriage, parental rights and duties; pleading and practice.	Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS218	Administrative Law		Introduction to fundamental administrative law concepts including the delegation of powers, due process, citizen access and participation, rulemaking, adjudication, and judicial review. Emphasis on Arizona administrative procedures and the role	Prerequisites: A grade of C or better in LAS109 and (BPC110 or permission of Department Chair or Program Director).		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of the paralegal in informal and prehearing advocacy and proceedings before a hearing officer.				
LAS220	Paralegal Internship Seminar		Coordinates on-the-job experiences with interpersonal relations, communications, time-management, and case-management skills. Provides opportunity to discuss problems encountered during internship.	Prerequisites: A grade of C or better in LAS203, LAS211, (LAS204 or LAS212), and (BPC110 or CIS105 or permission of Program Director). Corequisites: LAS221AB.	LAS220 may be repeated for a total of two (2) credit hours.	Occ	LEC 1.0 1.0 1.0
LAS221AB	Paralegal Internship		Field work through placement at a law firm or other law-related organization where student will gain experience working in a legal setting. Supervision and evaluation by on-the-job supervisor as well as college program director.	Prerequisites: Permission of Program Director. Corequisites: LAS220.	LAS221AB requires a minimum of 160 hours of field experience in a legal setting.	Occ	LAB 2.0 10.0 0.0
LAS225	Legal Research, Analysis, and Writing		Integration and further development of legal research and writing skills with an emphasis on critical thinking, issue analysis, and motion practice. Focus on integrating research, writing, and legal argument development.	Prerequisites: A grade of C or better in LAS131 and LAS211 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS229	Litigation Technologies		Use of presentation software; use of timekeeping, calendaring, and docketing software; use of litigation support software to organize case files; use of electronic trial presentation software in an electronic courtroom; ethical issues.	Prerequisites: A grade of C or better in LAS110 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS261	Bankruptcy		Examination of bankruptcy laws and procedures and the role of paralegals in	Prerequisites: A grade of C or better in LAS109 and		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			bankruptcy practice, including the commencement of a case, preparation of common forms, review of bankruptcy litigation including contested matters and adversary proceedings, and debtors' and creditors' rights and obligations.	(BPC110 or CIS105 or permission of Program Director).			
LAS265	Regulatory Compliance		Examination of, and requirements for, organizations maintaining compliance with regulatory schemes. Emphasis on federal regulations and the role of non-lawyer personnel, such as paralegals, in obtaining, organizing, analyzing, and presenting recommendations for acting on factual information and legal research related to regulatory requirements.	Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
LAS280	Paralegal Studies Portfolio Capstone		Demonstration of acquired skills and knowledge through review, revision, and supplementation of electronic portfolio containing evidence of program competencies; preparation, revision, and review of work product samples to facilitate the transition from student to entry-level paralegal.	A grade of C or better required in all Prerequisites. Prerequisites: LAS110, LAS203, LAS204, LAS214 and (BPC110 or CIS105 or permission of Program Director). Prerequisites or Corequisites: (LAS225 and LAS229) or permission of Program Director.		Occ	LEC 1.0 1.0 0.0
LAS294AA	Special Topics in Civil Law		Explores special topics related to the practice of civil law. Focuses on substantive and procedural aspects.	Prerequisites: Completion of Legal Assisting degree or certificate, or	LAS294AA may be repeated for a total of two (2)	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Department or Division.	credit hours.		
LAS294BA	Special Topics in Criminal Law		Explores special topics related to the practice of criminal law. Focuses on substantive and procedural aspects.	Prerequisites: Completion of Legal Assisting degree or certificate, or permission of Department or Division.	LAS294BA may be repeated for a total of two (2) credit hours,	Occ	LEC 1.0 1.0 1.0
LAS294CA	Special Topics in Administrative Law		Explores special topics related to the practice of administrative law. Focuses on substantive and procedural aspects.	Prerequisites: Completion of Legal Assisting degree or certificate, or permission of Department or Division.	LAS294CA may be repeated for a total of two (2) credit hours	Occ	LEC 1.0 1.0 1.0
LAS294DA	Special Topics in Current Legal Issues		Explores special topics related to the practice of law. Focuses on substantive and procedural aspects.	Prerequisites: Completion of Legal Assisting degree or certificate or permission of Department or Division	LAS294DA may be repeated for a total of two (2) credit hours.	Occ	LEC 1.0 1.0 1.0
LAS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to students major or career interest or with permission of Instructor.			
LAS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
LAS296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
LAS296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
LAS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
LAS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
LAS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
LAT101	Elementary Latin I		Introduction to the basic grammar and vocabulary of the Latin language. Practice reading and translating Latin into English	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: LAT 1101	Acad	LEC 4.0 4.0 4.0
LAT102	Elementary Latin II		Comparative study of English and Latin grammar. Emphasis on analytical thinking, memorization, and familiarization with new terminology. Translation from English and from original works in Latin.	Prerequisites: A grade of C or better in LAT101 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): Arizona Shared Unique Number SUN#: LAT 1102	Acad	LEC 4.0 4.0 4.0
LAT201	Intermediate Latin I		Introduction to translation technics using selections from various authors; emphasis on use of primary texts.	Prerequisites: A grade of C or better in LAT102. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 4.0 4.0 4.0
LAT202	Intermediate Latin II		Refinement of translation technics using selections from Virgil's Aeneid; emphasis on use of language and meter.	Prerequisites: A grade of C or better in LAT201. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 4.0 4.0 4.0
LAT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to	Prerequisites: Completion of at least twelve (12) college credits		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the career objectives of the students.	minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
LAT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career interest or with permission of the Instructor.			
LAT296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
LAT296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
LAT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
LAT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development. COMMON COMPETENCY COURSE				
LAT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
LBA155	Laboratory Assisting: Principles and Procedures		Overview of laboratory services, laboratory professionals, and the role of a laboratory assistant. Principles and procedures for pre-analytical processing of laboratory specimens. Performance of specimen processing, pre-analytical processes, and point-of-care testing. Application of quality assurance, quality control, quality management principles, infection control, and laboratory safety. Use of laboratory supplies, instrumentation, and information systems. Performing clerical and computer functions using medico-legal guidelines for documentation.	Prerequisites: (Acceptance into the Laboratory Assisting program), (a grade of C or better in PLB109 and PLB111), and permission of Program Director.		Occ	L+L 5.0 5.0 5.0
LBA158	Laboratory Assisting Practicum		Practicum in laboratory assisting based in healthcare facilities or reference laboratories. Performance of clinical skills for pre-analytical processing of laboratory	Prerequisites: A grade of C or better in LBA155 and permission of Program Director.		Occ	LAB 2.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			specimens, initial testing phases, and point-of-care testing using laboratory instrumentation, information systems, and supplies. Application of quality assurance, quality control, infection control, and laboratory safety. Performance of clerical and computer functions using medico-legal guidelines for documentation. Use of professional and ethical conduct in all interpersonal communications.				
LDR100	The Leader in You		Introductory exploration and application of leadership theories, concepts and practices for college students that want to make a difference in a changing world. Provides the concept of the relational leadership model and how it differs from traditional leadership theories. Focus on self-development of leadership potential through completion of personal and leadership assessments, values exploration and leadership skill applications.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
LDR101	Emerging Leaders I		Concepts and application of leadership skills and service learning to promote social change and value clarification. Development of organizational leadership skills through experiential learning	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
LDR102	Emerging Leaders II		Focus on implementing collaborative practices and organizational leadership skills to promote positive social change. Apply value-	Prerequisites: A grade of C or better in LDR101 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			based leadership behavior in diverse settings				
LDR201	Leadership Facilitation I		Designed to provide skills and practice for group facilitation of leadership activities in diverse settings Focus on development of organizational skills to promote effective group functioning	Prerequisites: A grade of C or better in LDR102 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
LET112	Introduction to Juvenile Corrections		Introduction to the Arizona Department of Juvenile Corrections. Includes the philosophy, mission, vision, and goals of the department in addition to juvenile corrections statistics and jurisdiction issues. Also covers programs available to youth in the department as well as agency information policy and access. Standards of conduct also covered.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
LET113	Juvenile Corrections Procedures		Practical application of juvenile corrections procedures. Includes workplace safety, first aid, and cardiopulmonary resuscitation (CPR) procedures in addition to principles of staff safety in the facility. Also covers physical intervention techniques, preparation and transportation of youth, and radio and telephone communications. Report writing also covered.	Prerequisites: None.		Occ	LAB 2.0 6.0 6.0
LET114	Juvenile Corrections Officer Skills		Officer skills for the juvenile corrections system. Includes cultural awareness, data security policy and procedures, and defensive driving skills. Also covers tools for and goals of behavior management and effective communication styles and skills.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Contraband legalities and procedures also covered.				
LET115	Crisis Intervention in Juvenile Corrections		Overview of juvenile corrections officer skills for crisis intervention. Includes phases of the stress model and situation assessment in addition to verbal and non-verbal crisis communication. Also covers behavioral support and conflict resolution goals and limitations. Life Space Interview (LSI) steps included.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
LET116	Adolescent Treatment Issues		Adolescent treatment issues in the juvenile corrections system. Includes stages of adolescent development and development theories. Covers mental health issues and illness, disorders, and interventions in addition to types of treatments, medications, and behavioral issues.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
LET117	Juvenile Corrections Supervision		Supervisory skills for the juvenile corrections system. Includes classification principles and systems, stages of change, and case management responsibilities. Also covers indicators of and reporting requirements for child abuse, Incident Command System (ICS) responsibilities, and education team roles and responsibilities. Positive Behavioral Interventions and Support (PBIS) also covered.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
LET118	Legal Issues in Juvenile Corrections		Overview of legal issues in the Arizona Department of Juvenile Corrections (ADJC) system. Includes justice system treatment	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			philosophies and theories as wells as adjudication, conviction, and victim's rights. Also covers civil and criminal liability, causes of civil litigation, and civil rights concerns. Search and seizure, due process, and physical intervention principles also covered.				
LET120	Juvenile Corrections Housing Unit Operations		Housing unit operations for juvenile corrections officers. Includes policies for housing unit operations, supervisory procedures, and documentation in addition to behavior management goals and techniques. Also covers levels of support, group management skills, and activation procedures for the Incident Command System (ICS).	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
LET130	Detention Officer Training		Introduction to the detention field. Includes officer responsibilities with regards to discipline, conduct and dealing with inmates in the legal system. Examination of detention services, management principles, philosophy and goals also covered. Constitutional Amendments, law enforcement ethics and corruption included.	Prerequisites: Permission of Department or Division.		Occ	LEC 2.0 2.0 2.0
LET132	Introduction to Correctional Law		Introduction to the legal and constitutional rights of inmates. Pre-trial, sentencing, and probation processes covered. Court cases with regards to enforcement personnel and custodial agencies discussed. Also covers inmate discipline and types of force.	Prerequisites: A grade of C or better in LET130.		Occ	LEC 3.0 3.0 3.0
LET134	Special Needs Issues and Communication		Management skills for dealing with inmates with special needs. Issues	Prerequisites: A grade of C		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			related to female inmates, drug addictions, and mental disorders covered. Techniques for dealing with suicidal inmates and gang members included	or better in LET132.			
LET135	Problem Solving and Crisis Management		Further examination of management techniques and tools within the detention facilities. Crisis intervention and de-escalation techniques covered. Also includes medical screening, inmate grievances, inmate disciplinary reports, and the reclassification system.	Prerequisites: A grade of C or better in LET134.		Occ	LEC 2.0 2.0 2.0
LET136	Detention Security Procedures		Security procedures within the detention facilities. Officer responsibilities with regards to contraband, facility security, and key/tool control. Procedures for conducting searches, security walks, headcounts, and the proper use of restraints. Dealing with hostage and emergency situations covered.	Prerequisites: A grade of C or better in LET135 or permission of Department or Division.		Occ	LEC 2.0 2.0 2.0
LET138	Detention Officer Emergency Procedures		Techniques for managing emergency situations in the detention facility including fires and medical emergencies. Skills for administrating first aid and cardiopulmonary resuscitation (CPR). Procedures for using control devices. Includes Occupational Safety and Health Administration (OSHA) safety equipment and methods as well as Sudden In-Custody Death (SICD) procedures.	Prerequisites: A grade of C or better in LET136.		Occ	LAB 1.0 3.0 3.0
LET139	Detention Facility Training		Daily procedures for managing the detention facility. Includes	Prerequisites: A grade of C		Occ	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			procedures for processing inmate needs and requests, completing departmental reports and crime scene management. Operational procedures and liability issues also covered.	or better in LET138.			
LET141	Detention Defensive Tactics		Defensive tactics training for Detention Officers. Covers defensive body mechanics, various defensive techniques, handcuffing, and search techniques as well as pressure points and the carotid control technique. Ground defense and survival skills, survival psychology, and physical fitness also included.	Prerequisites: Permission of Department or Division.		Occ	L+L 4.0 5.0 5.0
LET144	Detention Officer Field Training		Field training procedures for the detention facility officer. Includes officer communication, safety, and security as well as procedures for handling emergency situations in the detention facility. Also covers Order of Protection, Injunction against Harassment, and visitation responsibilities.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0
LET146	Officer Survival		Overview of skills and techniques for officer survival. Tactical thinking, critical incident stress, entry techniques and emergency plans as well as basic high risk traffic stops and search warrants covered. Limitations of the mind and body in a crisis also covered	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
LET148	Detention Officer Field Training Lab		Application of field training procedures for the detention facility officer. Includes communication and documentation requirements as well as officer safety in the tower and on the floor. Also	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 9.0 9.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			covers procedures for handling emergency situations and management of special populations within the detention facility.				
LET150	Firearms I		Overview of firearms usage. Covers firearms safety and nomenclature, basic firearms usage techniques, and firearms care and cleaning.	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 3.0 3.0
LET151	Firearms II		Practical application of firearms usage. Covers loading and unloading ammunition, firearm safety, daytime and nighttime firing techniques and shooting positions. Emphasis on qualification courses.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LET150.		Occ	L+L 2.0 2.0 2.0
LET152	Tactical Weapons		Practical application of tactical weapons procedures. Emphasis on handgun and rifle techniques in addition to impact weapon targets, use of force, and taser operation. Includes techniques for engaging suspects, advanced simunitions, and high threat vehicle engagement.	Prerequisites: Permission of Department or Division.		Occ	L+L 4.0 6.0 6.0
LET155	General Instructor Certification		Designed to aid persons responsible for training in the workplace. Emphasis on motivating the adult learner, systematic training, planning, and evaluating performance	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
LET160	Correctional System Ethics and Professionalism		Overview of policies and guidelines with respect to professionalism and ethics in the correctional system. Includes workforce diversity, staff-inmate relations, and harassment issues. Also covers the definition of ethics and the basis for ethical decision making	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
LET162	Introduction to Inmate Management		Effective inmate management	Prerequisites: Permission of		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			techniques. Includes components of effective management and use of officer discretion. Criminal justice system also covered. Procedures for dealing with inmate discipline and classification, grievances, and use of force determinations.	Department or Division.			
LET164	Correctional Information Systems		Overview of policies and guidelines for professional and effective distribution of information within the correctional system, including regulations governing two-way radio operation and use of a field notebook	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
LET166	Correction Officers Safety and Weapons Training		Basic shooting principles of the weapons used by correctional officers. Includes nomenclature, handling, loading and firing of the service handgun, shotgun, and 37mm gas gun. Lawful use of chemical agents including identification, coding, delivery and decontamination procedures.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 4.0 4.0
LET167	Correctional Sergeant Leadership		Examination of leadership skills, duties and responsibilities, and procedures for sergeants in correctional facilities. Includes leading and creating an environment that motivates employees, effective communication, professionalism, and staffing/roster management procedures. Also covers procedures for the Incident Command System (ICS), Designated Area Response Team (DART), and performance evaluations	Prerequisites: Permission of Department or Division.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			for correctional employees.				
LET168	Inmate Security Procedures I		Procedures for dealing with inmate security. Includes progressive behavior control and protective custody. Inmate count, personal property inventory, mail handling procedures, and cell extraction procedures also covered.	Prerequisites: Permission of Department or Division.		Occ	LEC 2.0 2.0 2.0
LET169	Inmate Security Procedures II		Security procedures for handling inmates. Covers searches, contraband, monitoring of inmates and perimeter checks. Transportation of inmates, use of restraints and driving skills including preventable collisions included.	Prerequisites: A grade of C or better in LET168 or Corequisites: LET168.		Occ	L+L 3.0 4.0 4.0
LET170	Security, Custody and Control Procedures		Procedures for maintaining security and control within a correctional institution. Includes custody levels, roles of staff, and essential components with regards to span-of-control. Also covers procedures for dealing with crime scene management, fires, and emergency situations.	Prerequisites: Permission of Department or Division.		Occ	LEC 2.0 2.0 2.0
LET172	Conflict and Crisis Management		Conflict and crisis management techniques for correctional institutions. Effecting positive, non-forceful resolutions to potentially violent situations. Emphasis on officer and inmate safety	Prerequisites: Permission of Department or Division.		Occ	LEC 2.0 2.0 2.0
LET173	Introduction to Leadership in Public Safety		Introduction to leadership in the field of public safety. Covers stages of adult human development, generational differences, and characteristics of effective leaders. Also includes characteristics of leaders, including	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			values, ethics, attitudes, behavior, and response techniques in addition to identification of personal strengths and determination of a personal leadership style.				
LET174	Organizational Culture and Leadership		Examination of organizational structure and its application to the field of public safety. Covers characteristics and principles of effective organizations, systems and process management, and phases of process building in addition to characteristics of a process enterprise. Also includes levels of leadership and characteristics, ethical considerations, restrictions, and best behaviors of each.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LET173.		Occ	LEC 3.0 3.0 3.0
LET175	Public Safety Leadership Capstone		Completion and professional presentation of a capstone project such as a formal staff study or leadership portfolio in the field of public safety, including steps for problem identification, research, and analyzing and reporting of information.	Prerequisites: A grade of C or better in LET174.		Occ	LAB 1.0 3.0 3.0
LET176	Medical and Mental Health		Responsibilities of the correctional system staff with regards to medical and mental health of inmates. Includes basic first aid, basic life support, and supervision and care for mentally ill and impaired inmates. Also includes drug and substance abuse and communicable disease control.	Prerequisites: Permission of Department or Division.		Occ	LEC 2.0 2.0 2.0
LET178	Physical Fitness and Self Defense Training		Physical and self defense training for correctional officers. Emphasis on aerobic	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			power, muscular strength, endurance, and flexibility. Includes necessary and legal self defense along with techniques for protection of self and others in physical confrontations. Also includes training guidelines, safety issues and the benefits of good physical fitness.				
LET179	Highway Patrol Procedures		Overview of operational and response procedures for highway patrol operations. Covers pursuits, roadblocks, emergency response, and high risk stops in addition to incident command systems. Also includes overview of racially biased policing, sex trafficking indicators, and marijuana field testing.	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
LET180	Introduction to Computer Aided Dispatch		Introduction to computer aided dispatch. Covers techniques and procedures for emergency broadcast, including dispatch protocol, types of requests, and use of the dispatch panel. Also includes an overview of banking and vehicle security systems, the Incident Command System (ICS), and procedures for officer involved emergencies.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
LET181	Emergency Communications Personnel		Duties and responsibilities of personnel within the emergency communications industry. Includes information operator and tactical dispatcher responsibilities for handling various types of calls including priority one, hot calls and pursuits. Also covers	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			split configuration communication.				
LET182	Emergency Communications Procedures		Practical application of emergency communications procedures. Includes dispatch functions, protocol and techniques, Incident Command system (ICS) implementation, and information officer and dispatcher responsibilities. In addition to basic dispatch procedures, covers queries, pursuits, priority one calls, hot calls, all calls, and high-risk situations and procedures. Radio dispatch card procedures also covered.	Prerequisites: None.		Occ	L+L 3.0 9.0 9.0
LET183	Transportation Law		Transportation law provisions. Covers Arizona Revised Statute (ARS) Title 28, drug transportation, and contraband as well as civil and criminal traffic laws. Traffic offenses, violation name, and classification included.	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
LET184	Introduction to 911 Call Basics		Overview of basics for processing 911 calls. Covers communications terminology, abbreviations and codes as well as various police systems. Also includes location systems including numbering, point of origin, freeway structure, various maps and city codes.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
LET185	911 Policies and Procedures		Policies and procedures for completing 911 calls. Includes the National Incident Management System (NIMS), Incident Command System (ICS) and the use of an incident action plan. Also covers the purpose and use of radio codes, the	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			online crime reporting website, and call signs. Alarm call types, prioritization, reporting, and cancellation procedures also covered.				
LET186	Specialized 911 Call Procedures		Procedures for managing specific emergency situations. Includes goals and procedures for handling barricaded suspect calls, active shooter situations and officer involved emergencies. Also covers Critical Incident Stress Management (CISM) resources and the impact of emotional labor.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
LET195	Proficiency Skills for Fire Investigators		Proficiency skills required of the fire investigator. Includes physical conditioning and wellness as well as defensive tactics and vehicle operations.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 4.0 4.0
LET196	Patrol Procedures for Fire Investigators		Patrol and off-duty responsibilities procedures for fire investigators. Includes domestic violence authority as well as priorities for handling crimes in progress. Also covers communication procedures and restrictions.	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
LET197	Firearms for Fire Investigators		Firearms training for the fire investigator. Includes firearm safety and procedures, including daytime and nighttime firing techniques and shooting positions. Practical application in a field environment.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 4.0 4.0
LET198	Criminal Investigations for Fire Investigators		Overview of procedures for conducting special criminal investigations. Responsibilities of the fire investigator with regard to death investigations, and assault and burglary	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			cases. Also covers gangs and gang activity in addition to narcotics and dangerous drug investigations.				
LET201	Physical Fitness Instructor Certification		Covers skills necessary to instruct and conduct physical fitness tests using the Cooper Institute for Aerobics Research standards and the Peace Officer Physical Aptitude Test (POPAT) standards. Also covers basics of human anatomy, strength training and aerobic conditioning as well as nutrition and prevention of injuries.	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
LET225	Criminal Investigations Certification		Police Detective Training. Emphasis on investigations, search and seizure, legal aspects of interview and interrogation, report writing, case management, and field problem scenarios.	Prerequisites: Must be a certified police officer or have permission of Department or Division.		Occ	LEC 6.0 6.0 6.0
LET225AA	Criminal Investigations Certification I		Overview of information, strategies, techniques, and resources available to detectives investigating property crimes, sex crimes, forged documents, and death investigations.	Prerequisites: Must be a certified police officer or have permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
LET225AB	Criminal Investigations Certification II		Review of laws regarding search and seizure. Updated information regarding new laws as they apply to search and seizure.	Prerequisites: Must be a certified police officer or have permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
LET225AC	Criminal Investigations Certification III		The legal framework for admissible confessions and other information gathered through interviews and interrogations. Prepares law enforcement personnel for obtaining confessions and other incriminating information	Prerequisites: Must be a certified police officer or have permission of Department or Division.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			from suspects used in court.				
LET225AD	Criminal Investigations Certification IV		Emphases on necessity for good reports in criminal investigations. Characteristics of pre-report preparation, preparing the body of the report, and assembling the case report. Process of handling submission of a case report, processing turndowns, and furthers.	Prerequisites: Must be a certified police officer or have permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
LET225AE	Criminal Investigations Certification V		Overview of the criminal investigators role in preparing case documents for submittal to the attorney and to prepare for trial.	Prerequisites: Must be a certified police officer or have permission of Department or Division.		Occ	LEC 0.5 0.5 0.5
LET225AF	Criminal Investigations Certification VI		Various types of electronic evidence and the procedures required to be submitted to the court for prosecution.	Prerequisites: Must be a certified police officer or have permission of Department or Division.		Occ	LEC 0.5 0.5 0.5
LET225AG	Criminal Investigations Certification VII		This course is a summative culmination of the investigator courses. Students will assume the investigator's role in a crime scene scenario, securing a crime scene, processing evidence, preparing documentation, and submit a case for trial.	Prerequisites: A grade of C or better in LET225AA, LET225AB, LET225AC, LET225AD, LET225AE, and LET225AF.		Occ	LEC 1.0 1.0 1.0
LET226	Arrest and Defense Tactics Instructor Training		Techniques for instructing students in arrest and defense tactics. Includes approaching suspects, use of equipment, and officer responsibilities as well as handcuffing and transporting prisoners. Use of force and liability issues, pressure points and impact weapons also covered. Close Quarter Crisis	Prerequisites: Permission of Department or Division.		Occ	LEC 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Management and psychological factors emphasized				
LET229	High Risk Situations/Instructor Training		Techniques for instructing students in high risk/known risk situations. Includes pre-stop procedures, primary and back-up officer responsibilities, suspect removal, and vehicle positioning	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
LET243	Search Warrant Preparation		Overview of statutes, constitutional requirements, and case law covering searches, seizures, and detentions relative to the search warrant process. Includes procedures and tactical considerations for obtaining and serving search warrants. Also covers review and documentation of probable cause related to property, persons, and drug-related crimes within a search warrant affidavit as well as search warrant draft procedures.	Prerequisites: Must be Law Enforcement personnel or have permission of Instructor.		Occ	L+L 6.0 6.0 6.0
LET250	DUI Detection		Overview of alcohol-related DUI enforcement and general deterrence, DUI detection and description techniques, legal statutes, Standardized Field Sobriety Test (SFST's) procedures, DUI arrest process, report writing, courtroom testimony techniques and drug detention techniques.	Prerequisites: Permission of Department or Division.		Occ	LEC 2.0 2.0 2.0
LET254	Criminal Investigations Detective I		Advanced training designed to prepare law enforcement officers for transition into investigator positions. Includes Criminal Investigations Division (CID) goals and expectations, the scouting mission techniques and	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			resources, operational plan components and development, and a review of professional writing skills for report writing, in addition to procedures for surveillance. Also covers procedures for preparing and serving search warrants, handling digital evidence, and working human trafficking and smuggling cases.				
LET255	Criminal Investigations Detective II		Further advanced training designed to prepare law enforcement officers for transition into investigator positions. Includes Department of Public Safety (DPS) Criminal Investigations Division (CID) policies and procedures, the intelligence mission and cycle, crime scene management and processing, in addition to open source intelligence applications and resources. Also covers procedures for handling informants, interview and interrogation, and courtroom/trial preparation.	Prerequisites: A grade of C or better in LET254.		Occ	LEC 3.0 3.0 3.0
LET256	Law Enforcement Firearm Instructor	AJS256	A train the trainer course for police firearm instructors. Covers instructional techniques for the pistol, revolver, and shotgun.	Prerequisites: AzPost (Peace Officer Standard and Training) Certified Police General Instructor or permission of Department or Division.	AJS/LET256 may be repeated for Credit.	Occ	LEC 5.0 5.0 5.0
LET256AA	Law Enforcement Patrol Rifle Instructor	AJS256A A	Techniques on proper manipulation and marksmanship skills needed by a patrol officer/deputy in the use of the patrol rifle, and techniques of teaching	Prerequisites: AzPOST (Peace Officer Standard and Training) certified law	AJS/LET256AA may be repeated for Credit.	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			those skills to other officers/deputies.	enforcement firearms instructor or permission of Instructor.			
LET260	Traffic Accident Investigation		Overview of accident investigation techniques and reports. Physical evidence on the roadway and from the vehicle, human factors and reaction times, measurement and calculations emphasized. Also includes felony collision investigation.	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
LET262	Active Shooter Procedures		Procedures for response and mitigation of active shooter/active homicide events. Includes policies for decision making, use of appropriate force, tactics for responding to active shooter events, basic structure clearing techniques, and Tactical Combat Casualty Care (TCCC) as well as opportunities for reality-based training.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0
LET279AA	Field Training: Phase I		Introduction to the Field Training Program. Overview of standards for officers in training. Also includes vehicle inspection, traffic stops, writing citations, and field interview cards. Use of the radio and Mobil Data Terminal (MDT) covered. Integration of radio and MDT use while driving patrol emphasized.	Prerequisites: Permission of Department or Division.		Occ	L+L 4.0 4.0 4.0
LET279AB	Field Training: Phase II		Field training communication skills. Procedures for interview and interrogation skills, as well as strategies for conflict resolution. Covers standards for effective report writing in addition to requirements for callback, arrest and field reports. Also	Prerequisites: Permission of Department or Division.		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			includes procedures for completing bookings. Standards for officers in training also evaluated.				
LET279AC	Field Training: Phase III		Continuation of field training. Procedures in arrest of suspects driving under the influence (DUI) and for investigating accidents emphasized. Standards for officers in training also evaluated.	Prerequisites: Permission of Department or Division.		Occ	L+L 5.0 5.0 5.0
LET279AD	Field Training: Phase IV		Culmination of field training. Self initiated field activity, 'On-view' cases emphasized. Integration of recognizing activity that is suspicious in nature or illegal and appropriate action. Standards for officers in training also evaluated.	Prerequisites: Permission of Department or Division.		Occ	L+L 4.0 6.0 6.0
MAS101	Introduction to Medical Assisting		Introduction to professional skills required in the field of medical assisting. Development of professional behaviors and expectations; in addition to but not limited to communication and mathematical calculations used.	Prerequisites: None.	Students must meet all the competencies to continue the Medical Assisting program.	Occ	LEC 3.0 3.0 3.0
MAS102	Fundamentals of Administrative Medical Assisting		Explores fundamental administrative procedures in ambulatory healthcare settings, such as appointment scheduling, telephone etiquette, and patient rights. Emphasis on a basic understanding of medical law and ethics and Health Insurance Portability and Accountability Act (HIPAA) regulations. Provides a basic overview of insurance, coding, billing, and electronic health records (EHR) as they relate to medical assisting.	Prerequisites: A grade of C or better in MAS101.		Occ	LEC 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MAS103	Basic Anatomy, Physiology, and Medical Terminology		Provides an overview of medical terminology and the word parts used in building and analyzing terms used in healthcare, including abbreviations and symbols. A body-systems approach is used for terms relating to anatomy, physiology, and pathophysiology.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MAS104	Medical Administrative Assisting Practicum		Students will apply the medical administrative concepts learned in previous program courses.	Prerequisites: A grade of C or better in HCC145 or MAS103.	All health and safety documents must remain current and in good standing, especially TB screening and CPR BLS provider, throughout the MAS104 Practicum.	Occ	LAB 4.0 4.0 4.0
MAS200	Medical Conversions and Calculations for Medical Assisting		Introduction to mathematical calculations specific to the clinical practice of medical assistants. Application of skills include conversions of measurements in the metric system, temperature conversions, military-standard time conversions, and medication dosage equivalents and calculations.	Prerequisites: A grade of C or better in MAS104.	MAS104 is graded using the Pass/Fail (P/Z) grading. Students must meet all the competencies to continue the Medical Assisting program. MAS200 may be repeated for a total of four (4) credit hours.	Occ	LEC 2.0 2.0 2.0
MAS201	Fundamentals of Clinical Medical Assisting		Provides a foundation for clinical lab skills related to medical assisting. This hands-on course	Prerequisites: A grade of C or better in MAS200 and		Occ	L+L 6.0 7.5 7.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			will explore surgical procedures, vital signs, sterilization, electrocardiogram (EKG), and emergency situations in the ambulatory setting. Includes a review of the steps involved in basic first aid and healthcare provider cardiopulmonary resuscitation (CPR).	acceptance into the Clinical Medical Assisting or Medical Assisting program.			
MAS202	Laboratory Testing in Ambulatory Healthcare Settings		Introduction to basic Point of Care Testing (POCT), specimen collection, and handling. Theory and practice of basic phlebotomy and application of fundamental phlebotomy procedures and techniques in a clinical ambulatory healthcare setting.	Prerequisites: A grade of C or better in MAS201.	Students must pass all lab competencies and the clinical final exam with a minimum of 85% to pass the course. (MAERB Policy 215)	Occ	L+L 6.0 7.5 7.5
MAS203	Medical Assisting Pharmacology		Explores principles of basic pharmacology and medication administration. Focus on responsibility and appropriate medication protocols as they relate to medical assisting.	Prerequisites: A grade of C or better in MAS201 and MAS202.	Students must pass all dosage calculation tests and the clinical final exam with a 100% to pass the course.	Occ	L+L 6.0 7.5 7.5
MAS204	Clinical Medical Assisting Practicum		Application of clinical medical assisting concepts while interacting with patients at a clinical practicum site.	Prerequisites: A grade of C or better in MAS203.	All health and safety documents must remain current and in good standing, especially TB screening and CPR BLS provider, throughout the MAS204 Practicum.	Occ	LAB 4.0 9.0 9.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MAS205	Medical Assisting Program Review		Prepares students to apply for the clinical credentialing examination and for entry into the medical assisting industry.	Prerequisites: A grade of C or better in MAS203.		Occ	LEC 2.0 2.0 2.0
MAT051	Number Sense I		Primary emphasis on conceptual understanding of whole numbers, integers and mathematical operations. Use systems of measure and Pythagorean Theorem. Focus on mathematical language, connections, patterns and reasoning.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
MAT052	Number Sense II		Primary emphasis on conceptual understanding of decimals and fractions, and decimal and fraction addition and subtraction. Solving problems involving decimals and fractions. Focus on mathematical language, connections, patterns and reasoning.	Prerequisites: A grade of C or better in MAT051, OR an appropriate district placement.		Acad	LEC 1.0 1.0 1.0
MAT053	Multiplicative and Proportional Reasoning		Primary emphasis on conceptual understanding of decimals and fractions, and decimal and fraction multiplication and division. Solving problems involving decimals, fractions, and percentages. Focus on additive and multiplicative reasoning including proportionality and similarity.	Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052), OR an appropriate district placement.		Acad	LEC 1.0 1.0 1.0
MAT055	Algebraic Structures		Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense.	Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053), OR a grade of C or better for (MAT081 or MAT082 or		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations.	MAT083 or MAT085 or MAT089), OR an appropriate district placement.			
MAT056	Functions I		Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations.	Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053 and MAT055), OR a grade of C or better in (MAT055 and (MAT081 or MAT082 or MAT083 or MAT085 or MAT089)), OR an appropriate district placement.		Acad	LEC 1.0 1.0 1.0
MAT057	Functions II		Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change.	Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053 and MAT055 and MAT056), OR a grade of C or better in (MAT055 and MAT056 and (MAT081 or MAT082 or MAT083 or MAT085 or MAT089)), OR an appropriate district placement.		Acad	LEC 1.0 1.0 1.0
MAT081	Basic Arithmetic		Primary emphasis on conceptual understanding of and	Prerequisites: None.	Student may receive credit for	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning.		only one of the following: (MAT051 and MAT052 and MAT053) OR MAT081 OR MAT082 OR MAT085.		
MAT082	Basic Arithmetic		Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning.	Prerequisites: None.	Student may receive credit for only one of the following: (MAT051 and MAT052 and MAT053), OR MAT081, OR MAT082, OR MAT085.	Acad	LEC 3.0 3.0 3.0
MAT085	Basic Arithmetic/College Mathematics Prep		Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning,	Prerequisites: None.	Student may receive credit for only one of the following: (MAT051 and MAT052 and MAT053), OR MAT081, OR MAT082, OR MAT085. MAT085 is designed	Acad	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and additive and multiplicative reasoning.		for students that do not place into MAT140 or MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. MAT085 is designed to prepare students to take MAT145 College Mathematics with Review. Additional topics from MAT09+ Introductory Algebra will be included to prepare students for MAT145 College Mathematics with Review.		
MAT090	Introductory Algebra		Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize	Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053), OR a grade of C or better in (MAT081 or MAT082 or MAT083 or MAT085 or MAT089), OR an appropriate district placement.	MAT090 students may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095,	Acad	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change.		OR MAT096.		
MAT091	Introductory Algebra		Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and	Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053), OR a grade of C or better in (MAT081 or MAT082 or MAT083 or MAT085 or MAT089), OR an appropriate district placement.	MAT091 students may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR MAT096.	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change.				
MAT092	Introductory Algebra		Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change.	Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053), OR a grade of C or better in (MAT081 or MAT082 or MAT083 or MAT085 or MAT089), OR an appropriate district placement.	MAT092 students may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR MAT096.	Acad	LEC 3.0 3.0 3.0
MAT095	Introductory Algebra/College Algebra Prep		Emphasis on meanings related to variable, equality, inequality, equivalence. The use of	Prerequisites: None.	MAT095 students may receive credit for	Acad	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			<p>additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally, and connect the different representations. Model and solve real world problems involving constant rate of change.</p>		<p>only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR MAT096. MAT095 is designed to prepare students that do not place into MAT120 or MAT121 or MAT122, but intend to complete College Algebra for their degree path. MAT095 is designed to prepare students to take MAT155 College Algebra/Fu nctions with Review or MAT156 College Algebra/Fu nctions with Review. Additional topics from MAT08+ Basic Arithmetic and MAT12+ Intermediat e Algebra</p>		

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					will be included to prepare students for MAT155 College Algebra/Fu nctions with Review or MAT156 College Algebra/Fu nctions with Review.		
MAT096	Introductory Algebra/College Algebra Prep		Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change.	Prerequisites: None.	MAT096 students may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR MAT096. MAT096 is designed to prepare students that do not place into MAT120 or MAT121 or MAT122, but intend to complete College Algebra for their degree path. MAT096 is designed to prepare students to take MAT155	Acad	LEC 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					College Algebra/Fu nctions with Review or MAT156 College Algebra/Fu nctions with Review. Additional topics from MAT08+ Basic Arithmetic and MAT12+ Intermediat e Algebra will be included to prepare students for MAT155 College Algebra/Fu nctions with Review or MAT156 College Algebra/Fu nctions with Review.		
MAT103	College Mathematics Prep		Foundational knowledge of topics necessary for success in College Mathematics. Emphasis on understanding mathematical concepts and their applications. Topics include number sense, proportional reasoning, numerical and algebraic expressions, linear equations, and representations of data.	Prerequisites: None.	MAT103 students may receive credit for only one of the following: (MAT052 and MAT053 and MAT055) or MAT103. This course is designed for students that do not qualify for MAT141 or MAT142, but intend to complete MAT14+ College Mathematic	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					s for their degree path. This course covers topics from basic arithmetic and introductory algebra.		
MAT108	Tutored Mathematics		Structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled. Mathematics study skills emphasized.	Prerequisites: None. Corequisites: (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156), OR any lower numbered MAT class, OR permission of Department/ Division Chair.	MAT108 may be repeated for a total of ten (10) credits.	Acad	LEC 2.0 2.0 2.0
MAT108AA	Tutored Mathematics		Structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled. Mathematics study skills emphasized.	Prerequisites: None. Corequisites: (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156), OR any lower numbered MAT class, OR permission of Department/	MAT108AA may be repeated for a total of ten (10) credit hours.	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Division Chair.			
MAT112	Mathematical Concepts and Applications		A problem solving approach to mathematics as it applies to real-life situations. Development, use and communication of mathematical concepts and applications that relate to measurement, percentage, practical geometry, statistics, finance, and unit conversions.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
MAT114	College Algebra Prep		Proper use of function notation, average rate of change of functions, and evaluating arithmetic and algebraic expressions. Analysis of linear and quadratic equations, and their applications; graphs of linear and quadratic functions; operations on polynomial expressions.	Prerequisites: None.	MAT114 students may receive credit for only one of the following: MAT114, OR MAT115.	Acad	LEC 4.0 4.0 4.0
MAT115	College Algebra Prep		Proper use of function notation, average rate of change of functions, and evaluating arithmetic and algebraic expressions. Analysis of linear and quadratic equations, and their applications; graphs of linear and quadratic functions; operations on polynomial expressions.	Prerequisites: None.	MAT115 students may receive credit for only one of the following: MAT114, OR MAT115.	Acad	LEC 5.0 5.0 5.0
MAT120	Intermediate Algebra		Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions.	Prerequisites: A grade of C or better in each of the following courses: (MAT055 and MAT056 and MAT057), OR a grade of C or better in (MAT090 or MAT091 or MAT092 or MAT095 or MAT096), OR an appropriate	MAT120 students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126.	Acad	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				district placement.			
MAT121	Intermediate Algebra		Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions.	Prerequisites: A grade of C or better in each of the following courses: (MAT055 and MAT056 and MAT057), OR a grade of C or better in (MAT090 or MAT091 or MAT092 or MAT095 or MAT096), OR an appropriate district placement.	MAT121 students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126.	Acad	LEC 4.0 4.0 4.0
MAT122	Intermediate Algebra		Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions.	Prerequisites: A grade of B or better in each of the following courses: (MAT055 and MAT056 and MAT057), OR a grade of B or better in (MAT090 or MAT091 or MAT092 or MAT095 or MAT096), OR an appropriate district placement.	MAT122 students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126.	Acad	LEC 3.0 3.0 3.0
MAT126	Intermediate Algebra with Review		Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions.	Prerequisites: None.	MAT126 students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122, OR MAT126.	Acad	LEC 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					This course is designed for students that do not qualify for MAT120, MAT121, or MAT122, but need MAT12+ Intermediate Algebra to fulfill a degree requirement OR intend to complete MAT15+ College Algebra for their degree path. Review of MAT08+ Basic Arithmetic and/or MAT09+ Introductory Algebra as needed.		
MAT140	College Mathematics		Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics.	Prerequisites: An appropriate District placement or a grade of C or better in (MAT052, MAT053 and MAT055), or (MAT055, MAT056 and MAT057) or MAT085 or MAT09+ or MAT103 or MAT114 or MAT115 or MAT12+.	Students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146. Students do not need to take all MAT classes in numerical order; please consult with an advisor for the appropriate math sequence for student	Acad	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					educational goals. Course Attribute(s): General Education Designation : Mathematics - [MA] Arizona Shared Unique Number SUN# MAT 1142		
MAT141	College Mathematics		Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics.	Prerequisites: An appropriate District placement or a grade of C or better in (MAT052, MAT053 and MAT055) or (MAT055, MAT056 and MAT057) or MAT085 or MAT09+ or MAT103 or MAT114 or MAT115 or MAT12+.	MAT141 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145 or MAT146. Students do not need to take all MAT classes in numerical order; please consult with an advisor for the appropriate math sequence for student educational goals. Course Attribute(s): General Education Designation : Mathematics - [MA] Arizona Shared Unique Number	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					SUN# MAT1142		
MAT142	College Mathematics		Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics.	Prerequisites: An appropriate District placement or a grade of C or better in (MAT052, MAT053 and MAT055) or (MAT055, MAT056 and MAT057) or MAT085 or MAT09+ or MAT103 or MAT114 or MAT115 or MAT12+.	MAT142 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145 or MAT146. Students do not need to take all MAT classes in numerical order; please consult with an advisor for the appropriate math sequence for student educational goals. Course Attribute(s): General Education Designation : Mathematics - [MA] Arizona Shared Unique Number SUN# MAT1142	Acad	LEC 3.0 3.0 3.0
MAT145	College Mathematics with Review		Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance,	Prerequisites: None.	MAT145 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or	Acad	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			probability, and statistics, along with review of arithmetic and introductory algebra, as needed.		MAT146. This course is designed for students that do not qualify for MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. Review of Basic Arithmetic and Introductory Algebra as needed.		
MAT146	College Mathematics with Review		Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics, along with review of arithmetic and introductory algebra, as needed.	Prerequisites: None.	MAT146 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146. This course is designed for students that do not qualify for MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. Review of Basic Arithmetic and Introductory Algebra as needed.	Acad	LEC 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MAT150	College Algebra/Functions		Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems.	Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair.	Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156.	Acad	LEC 5.0 5.0 5.0
MAT151	College Algebra/Functions		Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems.	Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair.	Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156.	Acad	LEC 4.0 4.0 4.0
MAT152	College Algebra/Functions		Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems.	Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair.	Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156.	Acad	LEC 3.0 3.0 3.0
MAT155	College Algebra/Functions with Review		Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-	Prerequisites: A grade of C or better in (MAT055, MAT056, and	Students may receive credit for only one of the	Acad	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems.	MAT057), or MAT09+, or MAT114, or MAT115, or an appropriate district placement for MAT120 or MAT121 or MAT122, or permission of Department/ Division Chair.	following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. This course is designed for students that do not qualify for MAT150 or MAT151 or MAT152, but intend to complete MAT15+ College Algebra for their degree path. Review of MAT12+ Intermediate Algebra as needed.		
MAT156	College Algebra/Functions with Review		Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems, along with review of intermediate algebra, as needed.	Prerequisites: A grade of C or better in each of the following: (MAT055, MAT056, and MAT057), OR MAT09+ or MAT114 or MAT115, OR an appropriate district placement for MAT120 or MAT121 or MAT122, OR permission of Department or Division Chair.	Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. This course is designed for students that do not qualify for MAT150 or MAT151 or MAT152, but intend to complete MAT15+ College	Acad	LEC 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Algebra for their degree path. Review of MAT12+ Intermediate Algebra as needed.		
MAT172	Finite Mathematics		An introduction to the mathematics required for the study of social and behavioral sciences. Includes combinatorics, probability, descriptive statistics, matrix algebra, linear programming and the mathematics of finance. Includes applications of technology in problem-solving.	Prerequisites: A grade of C or better in (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156), OR MAT187, OR an appropriate district placement.	Course Attribute(s): General Education Designation : Mathematics - [MA]	Acad	LEC 3.0 3.0 3.0
MAT182	Plane Trigonometry		A study of measures of angles, properties of graphs of trigonometric functions, fundamental identities, addition and half-angle formulas, inverse trigonometric functions, solutions of trigonometric equations, complex numbers and properties of triangle solution. May receive credit for only one of the following: MAT182 or MAT187.	Prerequisites: A grade of C or better in (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156), OR an appropriate district placement. Corequisites: (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or	MAT182 students may receive credit for only one of the following: MAT182 or MAT187. Course Attribute(s): Course Attribute(s): General Education Designation : Mathematics - [MA] in combination with: MAT150 or MAT151 or MAT152 or MAT155 or MAT156	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				MAT151AD or MAT152 or MAT155 or MAT156).			
MAT187	Precalculus		Topics in algebra and trigonometry in preparation for calculus.	Prerequisites: A grade of C or better in MAT15+, or an appropriate district placement.		Acad	LEC 5.0 5.0 5.0
MAT188	Precalculus		Topics in algebra and trigonometry in preparation for calculus.	Prerequisites: A grade of C or better in MAT 15+, OR an appropriate district placement.	Students may receive credit for only one of the following: MAT182 OR MAT187 OR MAT188.	Acad	LEC 4.0 4.0 4.0
MAT206	Elements of Statistics		Basic concepts and applications of statistics, including data description, estimation and hypothesis tests.	Prerequisites: A grade of C or better in MAT14+, or MAT15+, or MAT187, or equivalent, or an appropriate District placement, or permission of Department/ Division Chair.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS] Course Attribute(s): Arizona Shared Unique Number SUN#: MAT 1160	Acad	LEC 3.0 3.0 3.0
MAT212	Brief Calculus		Introduction to the theory, techniques and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences.	Prerequisites: A grade of C or better in MAT15+, or MAT187, or an appropriate District placement.	Students may receive credit for only one of the following: MAT212 or MAT213. Course Attribute(s): General Education Designation :	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Mathematics - [MA] Arizona Shared Unique Number SUN# 2212		
MAT213	Brief Calculus		Introduction to the theory, techniques, and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences.	Prerequisites: A grade of C or better in MAT15+, or MAT187, or an appropriate District placement.	Students may receive credit for only one of the following: MAT212 or MAT213. Course Attribute(s): General Education Designation : Mathematics - [MA] Arizona Shared Unique Number SUN# 2212	Acad	LEC 4.0 4.0 4.0
MAT217	Mathematical Analysis for Business		An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions.	Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221.	Students may receive credit for only one of the following: MAT217 or MAT218.	Acad	LEC 3.0 3.0 3.0
MAT218	Mathematical Analysis for Business		An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions.	Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221.	Students may receive credit for only one of the following: MAT217 or MAT218.	Acad	LEC 4.0 4.0 4.0
MAT220	Calculus with Analytic Geometry I		Limits, continuity, differential and integral calculus of functions of one variable.	Prerequisites: A grade of C or better in MAT187, or MAT188, or an		Acad	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				appropriate District placement.			
MAT221	Calculus with Analytic Geometry I		Limits, continuity, differential and integral calculus of functions of one variable.	Prerequisites: A grade of C or better in MAT187, or MAT188, or an appropriate District placement.		Acad	LEC 4.0 4.0 4.0
MAT225	Elementary Linear Algebra		Introduction to matrices, systems of linear equations, determinants, vector spaces, linear transformations and eigenvalues. Emphasizes the development of computational skills.	Prerequisites: A grade of C or better in MAT212 or MAT213 or MAT220 or MAT221, or equivalent.		Acad	LEC 3.0 3.0 3.0
MAT227	Discrete Mathematical Structures		Course emphasizes discrete mathematics connections to computer science by exposing students to foundational concepts of set theory, logic, counting, induction, proof techniques, graph theory, and algorithms.	Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221, or permission of Department or Division Chair.		Acad	LEC 3.0 3.0 3.0
MAT230	Calculus with Analytic Geometry II		Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series.	Prerequisites: A grade of C or better in MAT220 or MAT221 or equivalent.	Students may receive credit for only one of the following: MAT230 or MAT231 Course Attribute(s): General Education Designation : Mathematics - [MA] Arizona Shared Unique Number SUN#: MAT 2230	Acad	LEC 5.0 5.0 5.0
MAT231	Calculus with Analytic Geometry II		Techniques of integration for both	Prerequisites: A grade of C	MAT231 student	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series.	or better in MAT220 or MAT221 or equivalent.	may receive credit for only one of the following: MAT230 or MAT231. General Education Designation : Mathematics - [MA] Arizona Shared Unique Number SUN# MAT 2230		
MAT240	Calculus with Analytic Geometry III		Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration, and an introduction to vector fields.	Prerequisites: A grade of C or better in Grade of C or better in MAT230 or MAT231.	MAT240 student may receive credit for only one of the following: MAT240 or MAT241. Course Attribute(s): General Education Designation : Mathematics - [MA]	Acad	LEC 5.0 5.0 5.0
MAT241	Calculus with Analytic Geometry III		Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration and an introduction to vector fields.	Prerequisites: A grade of C or better in MAT230 or MAT231.	Students may receive credit for only one of the following: MAT240 or MAT241. Course Attribute(s): General Education Designation : Mathematics - [MA] Arizona Shared Unique Number	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					SUN#: MAT 2241		
MAT256	Investigating Quantity: Number, Operations and Numeration Systems		Explore number, numeration systems and operations on numbers. Techniques of problem solving with an emphasis on exploring a variety of strategies. Use a variety of visualization techniques to develop a conceptual understanding of these topics.	Prerequisites: A grade of C or better in (MAT15+ or higher), or (MAT12+ and MAT14+), or [MAT14+ and (MAT114 or MAT115)], or (MAT14+ and an appropriate District placement into MAT150, MAT151, or MAT152), or permission of Department/ Division Chair.	MAT256 is designed to meet requirements for prospective elementary education teachers.	Acad	LEC 4.0 4.0 4.0
MAT257	Investigating Geometry, Probability and Statistics		Explores geometry, measurement, probability and statistics. Uses visualization, technologies, problem solving, reasoning and proof to develop a conceptual understanding of these topics.	Prerequisites: A grade of C or better in MAT256 or permission of Department/ Division Chair.	MAT257 is designed to meet the requirements for prospective elementary education teachers.	Acad	LEC 4.0 4.0 4.0
MAT276	Modern Differential Equations		Introduces differential equations, theoretical and practical solution techniques with applications. Problem solving using MATLAB.	Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department/ Division Chair.	Course Attribute(s): General Education Designation : Mathematics - [MA]	Acad	LEC 4.0 4.0 4.0
MAT277	Modern Differential Equations		Introduces differential equations, theoretical and practical solution techniques with applications. Problem solving using MATLAB.	Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department/ Division Chair.	Course Attribute(s): General Education Designation : Mathematics - [MA]	Acad	LEC 3.0 3.0 3.0
MAT280	Foundational Statistics for Engineers	ECE280	Fundamentals of probability, descriptive statistics, sampling distributions, parameter	Prerequisites: A grade of C or better in MAT220, or		Acad	L+L 3.0 5.0 5.0

Course	Course Title	Cross References	Description	Requisite	Course Note	Subject Type	Credits Periods Load
			estimation, tests of hypotheses, regression analysis, analysis of variance, and design of experiments.	MAT221, or equivalent.			
MAT282AA	Service-Learning Experience in Mathematics		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MAT282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
MAT282AB	Service-Learning Experience in Mathematics		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MAT282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
MAT282AC	Service-Learning Experience in Mathematics		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MAT282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
MAT295	Special Topics in Mathematics		Conceptual and computational aspects of a special topic in modern mathematics.	Prerequisites: Permission of Department/ Division Chair.		Acad	LEC 1.0 1.0 1.0
MAT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to	Prerequisites: Permission of Department/		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Division Chair.			
MAT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Department/ Division Chair.		Acad	LAB 2.0 2.0 0.0
MAT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Department/ Division Chair.	MAT298AC may be repeated for a total of six (6) credit hours.	Acad	LAB 3.0 3.0 0.0
MCO120	Media and Society		Study of historical and contemporary roles of media and its	Prerequisites: Eligibility for ENG101 or		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			pervasiveness in society as it relates to culture, politics and education.	ENG107 or permission of Instructor.			
MCO220	Cultural Diversity and the Media		Images of the diverse cultures and gender issues within the U.S. media. Exploration of racial and gender roles which shape the media as well as media roles which influence U.S. race relations and racial change. Roles, contributions, and challenges of the minority press in the United States.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Literacy and Critical Inquiry - [L]	Occ	LEC 3.0 3.0 3.0
MCO296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
MCO296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and	Prerequisites: Completion of at least twelve (12)		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
MCO296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to students major or career interest or with permission of Instructor.			
MCO296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
MCO298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
MCO298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
MCO298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
MCP100	Basics of Meat Cutting		Fundamentals of meat department safety and sanitation. Introduction to power and hand tools, equipment breakdown	Prerequisites: None.		CLK	146

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and setup, meat department operations, teamwork, and customer service.				
MCP101	Introduction to Meat Clerk		Introduction to the retail meat environment, weight conversions, meat processing, inventory control, basic knife skills, packaging, stocking, and merchandising skills. Emphasis on accuracy, quality, and productivity.	Prerequisite: None.		CLK	146
MCP103	Meat Fabrication		Reinforcement of skills for processing cuts of meat, including specialized cuts of meat. Course emphasizes sanitation, accuracy, quality, productivity, retail sales, and customer service.	Prerequisites: None.		CLK	176
MCP104	Merchandising		Advanced cutting, wrapping, weighing, and displaying retail cuts of meat. Topics include sanitation, accuracy, quality control, productivity, retail sales, and customer service.	Prerequisites: None.		CLK	176
MDC103	Introduction to Medical Assisting		This course develops the foundation of healthcare through an understanding of anatomy and physiology, medical terminology, application of basic pathophysiology as it relates to entry-level medical assisting, emergency preparedness, and demonstration of CPR completion. Medical terminology as it relates to structures, functions, diseases, procedures, and diagnostic testing. Building and analyzing terms using word parts. Medical abbreviations, symbols and correct spelling and pronunciation, Professionalism in	Program admission, and successful completion of RDG100 or higher or appropriate reading placement into CRE101. Health and Safety Documentati on uploaded to American DataBank and verified prior to being enrolled in the class.	Health and Safety Documentat ion Required ? Documents listed below should be uploaded into American DataBank at least 3 weeks prior to class start and must be uploaded and verified before enrollment can occur: MMR (measles, mumps,rub	CLK	156

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			healthcare to ensure students are ready to enter the professional workplace including etiquette, image, manners, communication, professional relationships, responsibility and accountability, respectfulness, patient privacy. Empathy, compassion and emotional maturity specific to the healthcare setting. Focus on development of personal and professional communication skills and an understanding of how effective communication skills promote teamwork. Additional focus on intercultural communication strategies.		ella) Varicella (chickenpox) TDaP (tetanus, diphtheria, pertussis) Influenza (flu) Two Step TB (tuberculosis) Hep B Series (hepatitis B) Basic Life Support (BLS) Provider CPR certification Level One Fingerprint Clearance Card		
MDC104	Fundamentals of Administrative Medical Assisting		This course explores fundamental administrative procedures in various healthcare settings. Overview of the daily operations, principles and procedures for administrative skills including: medical record management, introduction to the electronic health record (EHR), and application of insurance, coding and billing. Basic administrative office policies, procedures, appointment scheduling, telephone etiquette, patient reception, financial practices, third party payers, health insurance, and basic understanding of medical billing and coding. Health organization structure, patient rights and quality care. Definition and	Prerequisites: MDC103.		CLK	159

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			importance of values, basic understanding of medical law and ethics.				
MDC105	Fundamentals of Clinical Medical Assisting I		Overview of the daily operations, principles and procedures for clinical medical assisting, including: compliance with Occupational Safety and Health Administration (OSHA), the Centers for Disease Control and Prevention (CDC), and Clinical Laboratory Improvement Amendments (CLIA). Infection control practices including, proper disposal of biohazardous materials and sharps, aseptic handwashing, appropriate application of personal protective equipment (PPE), blood borne pathogens, fomites, chain of infection, setting up and maintaining a sterile field, surgical instrument identification and sterilization, sterile techniques, and application of sterile gloves. Definition, application and importance of performing vital signs accurately (blood pressure, pulse, respirations, temperature, pulse oximetry, height and weight). Basic understanding of the fundamental concepts of nutrition and diet as they relate to human health and disease.	Prerequisites: A grade of C or better in MDC104.		CLK	141
MDC106	Fundamentals of Clinical Medical Assisting II		This course explores all aspects of clinical medical assisting skills, concepts, and procedures in a simulated healthcare setting. Topics include	Prerequisites: MDC105.		CLK	205

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			<p>medical specialty practices and basic point-of-care testing (POCT), specimen collection and handling while complying with state and federal government agencies. The course also explores principles and procedures for basic dosage calculation and medication administration specific to medical assisting. Theory and practice of basic phlebotomy procedures and equipment. This course prepares students for the medical assisting national credential examination, and provides tools and strategies for gainful employment.</p>				
MDC106DC	Fundamentals of Clinical Medical Assisting II		<p>This course explores all aspects of clinical medical assisting skills, concepts, and procedures in a simulated healthcare setting. Topics include medical specialty practices and basic point-of-care testing (POCT), specimen collection and handling while complying with state and federal government agencies. The course also explores principles and procedures for basic dosage calculation and medication administration specific to medical assisting. Theory and practice of basic phlebotomy procedures and equipment. This course prepares students for the medical assisting national credential examination, and provides tools and</p>	Prerequisites: MDC105.		CLK	174

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			strategies for gainful employment.				
MDC130	Medical Assisting Practicum		This course prepares and engages students in a practicum experience with an opportunity to apply both clinical and administrative skills and concepts which include the application of duties, procedures, and knowledge derived from program coursework.	Prerequisites: A grade of C or better in MDC106 or MDC120 with a P grade. Students are responsible to maintain the requirements of the background check, fingerprint clearance card, and health and safety documentation throughout the practicum experience.	Practicum hours are site-specific. The days of the week are Monday through Friday. The instructor will provide site assignment/ location.	CLK	200
MDL190	Clinical Laboratory Operations		Overview of laboratory services, laboratory professionals, and the role of a medical laboratory technician (clinical laboratory technician). Understanding of health care reform, reimbursement, cost analysis, coding, credentialing, accreditation, and regulatory agencies. Emphasis on process improvement, laboratory mathematics, statistics, documentation, medico-legal implications, education, management and personnel, and specimen integrity. Application of pre-analytical, analytical, and post-analytical principles, infection control, and laboratory safety. Recognition of acceptable quality control and quality management principles,	Prerequisites: Acceptance into the Medical Laboratory Science program and permission of Program Director.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			phlebotomy principles, and lab equipment, glassware, labware, and water purification. Includes information systems and information management in laboratories. Importance of professional growth, communicating with the patient and public, and ethical conduct.				
MDL240	Clinical Urinalysis and Body Fluid Analysis		Examines anatomy and physiology of the renal system, renal diseases, and renal function tests. Emphasis on interpretation, evaluation, and reporting of urinalysis and body fluid results, urine and body fluid collection techniques, types, specimen handling and preservation, and instrument calibration, maintenance, and quality control. Application of body fluid analyses, and chemical and microscopic analysis of urine.	Prerequisites: A grade of C or better in MDL190, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	L+L 3.0 5.0 5.0
MDL241	Practicum: Clinical Urinalysis and Body Fluid Analysis		Practicum experience in clinical urinalysis and body fluid analysis based in healthcare facilities or reference laboratories. Assessment of anatomy and physiology of the renal system, renal diseases, and renal function tests. Performance of interpretation, evaluation, and reporting of urinalysis and body fluid results, urine and body fluid collection techniques, types, specimen handling and preservation, and instrument calibration, maintenance, and quality control. Performance of body fluid analyses and	Prerequisites: A grade of C or better in MDL240, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	LAB 1.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			chemical and microscopic analysis of urine.				
MDL242	Clinical Hematology and Hemostasis		Examines the anatomy and physiology of the hematopoietic and hemostasis systems, hematology and hemostasis case studies, anemia categories, and thrombocyte, hemostatic, and malignant and nonmalignant leukocyte disorders. Emphasis on interpreting, evaluating, and reporting hematology and hemostasis results, anticoagulant therapy, morphology, peripheral smear correlation with analyzer results and patient condition, erythrocyte indices, collection techniques, specimen handling, calibration, and quality control. Methods of analysis on hematology and hemostasis analyzers, and preventive maintenance.	Prerequisites: A grade of C or better in MDL240, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	L+L 6.0 9.0 9.0
MDL243	Practicum: Clinical Hematology and Hemostasis		Practicum experience in clinical hematology and hemostasis based in healthcare facilities or reference laboratories. Assessment of the anatomy and physiology of the hematopoietic and hemostasis systems, hematology case studies, anemia categories, and thrombocyte, malignant and nonmalignant leukocyte disorders. Application of interpreting, evaluating, and reporting hematology results, morphology, peripheral smear correlation with analyzer results,	Prerequisites: A grade of C or better in MDL242, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	LAB 1.0 6.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			erythrocyte indices, collection techniques, specimen handling, calibration, and quality control. Emphasis on hematology and hemostasis analyzers, and preventive maintenance. Perform hematology and hemostasis analyses.				
MDL244	Clinical Immunohematology and Immunology		Principles of immunity and immunologic testing. Causes of disorders of the immune system. Study of blood group antigens, antibodies, and genetics. Understanding of donor blood collection, component preparation, and transfusion therapies. Performance of testing techniques and evaluation of data.	Prerequisites: A grade of C or better in MDL242, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	L+L 6.0 9.0 9.0
MDL245	Practicum: Clinical Immunohematology and Immunology		Practicum in immunohematology and immunology in healthcare facilities or reference laboratories. Performance of clinical skills in immunity and immunologic testing, testing for disorders of the immune system, blood group antigens, antibodies, and genetics. Observation of donor blood collection, component preparation, and transfusion therapies. Performance of testing techniques and evaluation of data.	Prerequisites: A grade of C or better in MDL244, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	LAB 1.0 6.0 0.0
MDL246	Clinical Microbiology		Emphasis on microbial infectious and bioterrorism agents, classification, morphology, phenotyping, diseases, biotechnology and molecular technology, quality assurance and quality control, epidemiological significance, and regulatory standards.	Prerequisites: A grade of C or better in MDL244, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	L+L 6.0 9.0 9.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Application of antimicrobial, biochemical, and differential testing, drug resistance, selection, inoculation and incubation of culture media, isolation techniques, cell culture and viral detection tests, and macroscopic and microscopic evaluation. Emphasis on staining, rapid and commercial testing methods, safety precautions, specimen collection, handling, storage, and disposal of biological material, pretreatment, decontamination, and concentration techniques, specimen type, source, and common microbial flora, specimen acceptability, and instrumentation.				
MDL247	Practicum: Clinical Microbiology		Practicum experience in clinical microbiology based in healthcare facilities or reference laboratories. Emphasis on microbial infectious and bioterrorism agents, classification, morphology, phenotyping, diseases, biotechnology and molecular technology, quality assurance and quality control, epidemiological significance, and regulatory standards. Application of antimicrobial, biochemical, and differential testing, drug resistance, selection, inoculation and incubation of culture media, isolation techniques, cell culture and viral detection tests, and macroscopic and microscopic evaluation. Procedures for staining,	Prerequisites: A grade of C or better in MDL246, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	LAB 1.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			rapid and commercial testing methods, safety precautions, specimen collection, handling, storage, and disposal of biological material, pretreatment, decontamination, and concentration techniques, specimen type, source, and common microbial flora, specimen acceptability, and instrumentation.				
MDL248	Clinical Chemistry		Principles and procedures of clinical chemistry and testing for diseases of protein, nonprotein nitrogen compounds, lipid, glucose, bilirubin, liver disease, cardiac and endocrine function, toxicology, therapeutic drug monitoring, acid base balance, electrolytes, and trace elements. Emphasis on quality assurance, quality control, mathematics and statistical analysis, specimen collection, and preanalytical processes. Study of immunoassays, nucleic acid probes, viral and tumor markers, automation of analytical techniques, spectrophotometry, genetic diseases and inborn errors of metabolism, and point-of-care testing. Use of reagents, equipment, supplies, and units of measure.	Prerequisites: A grade of C or better in MDL246, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	L+L 6.0 9.0 9.0
MDL249	Practicum: Clinical Chemistry		Practicum in clinical chemistry based in healthcare facilities or reference laboratories. Performance of clinical skills in clinical chemistry and testing for diseases of protein, nonprotein nitrogen compounds,	Prerequisites: A grade of C or better in MDL248, acceptance into the Medical Laboratory Science		Occ	LAB 1.0 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			lipid, glucose, bilirubin, liver disease, cardiac and endocrine function, toxicology, therapeutic drug monitoring, acid base balance, electrolytes, genetic diseases and inborn errors of metabolism, and trace elements. Application of quality assurance, quality control, mathematics and statistical analysis, specimen collection, and preanalytical processes. Performance of immunoassays, nucleic acid probes, viral and tumor markers, automation of analytical techniques, spectrophotometry, and point-of-care testing. Use of reagents, equipment, supplies, and units of measure.	program, and permission of Program Director.			
MDL252	Clinical Preparation I		Examines clinical laboratory testing in a simulated laboratory environment. Emphasis on interpretation, evaluation, and reporting of a variety of laboratory results, and includes instrument calibration, maintenance, and quality control.	Prerequisites: A grade of C or better in MDL244, acceptance into the Medical Laboratory Science program, and permission of Program Director.		Occ	L+L 0.5 2.5 2.5
MDL263	Clinical Preparation II		Continuation of examination of clinical laboratory testing in a simulated laboratory environment. Emphasis on interpretation, evaluation, and reporting of a variety of laboratory results, and includes instrument calibration, maintenance, and quality control.	Prerequisites: A grade of C or better in MDL248, acceptance into the Medical Laboratory Science program, and permission of Program Director.		Occ	L+L 0.5 2.5 2.5
MDL290	Medical Laboratory Science Program Review		Preparation for the professional practice national examinations.	Prerequisites: A grade of C or better in		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Topics include methodologies, techniques, and problem solving relative to urinalysis; body fluids, hematology, hemostasis, immunohematology, immunology, microbiology, and chemistry. Development of a professional practice resume, personalized test taking strategies and examination study plan. Maintenance of professional competency and lifelong learning and enhancing professional practice.	(MDL247 and MDL249), acceptance into the Medical Laboratory Science program and permission of Program Director.			
MDL291	Medical Laboratory Science Program Capstone		Preparation for the professional practice national examinations. Topics include methodologies, techniques, and problem solving relative to urinalysis; body fluids, hematology, hemostasis, immunohematology, immunology, microbiology, and chemistry. Development of personalized test taking strategies and examination study plan.	Prerequisites: A grade of C or better in (MDL247 and MDL249), acceptance into the Medical Laboratory Science program and permission of Program Director.		Occ	LEC 1.0 1.0 1.0
MDL295AA	Special Topics: Medical Laboratory Science		Explores a special topic related to medical laboratory science. Topics vary and include concepts relevant to those advancing or pursuing careers in medical laboratory science.	Prerequisites: Permission of Program Director.	MDL295AA may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 2.0 1.7
MDL295AB	Special Topics: Medical Laboratory Science		Explores a special topic related to medical laboratory science. Topics vary and include concepts relevant to those advancing or pursuing careers in medical laboratory science.	Prerequisites: Permission of Program Director.	MDL295AB may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 2.7
MDL295AC	Special Topics: Medical Laboratory Science		Explores a special topic related to medical laboratory science.	Prerequisites: Permission of	MDL295AC may be repeated for	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Topics vary and include concepts relevant to those advancing or pursuing careers in medical laboratory science.	Program Director.	a total of six (6) credit hours.		
MEC101	HVAC I: Principles and Trade Calculations		Basic principles of heating, ventilating and air conditioning (HVAC). Trade calculations, algebraic and geometric equations, and scientific notation. Use and maintenance of HVAC trade tools.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MEC103	HVAC II: Piping, Soldering, Brazing and Electrical		Application, preparation and joining of copper and plastic pipe. Soldering and brazing tools, materials, and procedures. Refrigeration cycle, furnace operation and maintenance. Use of multimeter and manometer. Electricity, electrical circuits, and electrical components. Measurement of voltage, current, resistance and circuit continuity. Ohm's Law.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MEC105	Residential and Industrial Plumbing I		Plumbing practices, history, laws, codes, regulations and responsibility to the public. Usage and maintenance of hand and power tools. Workplace safety and Occupational Safety and Health Administration (OSHA) requirements. Application of basic plumbing calculations and principles of science as they relate to plumbing system installation and maintenance. Characteristics, advantages, disadvantages, and uses of pipe and tube. Fittings for cast-iron, glass, clay, concrete, copper, steel,	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			plastic. Special materials and galvanic action. Piping connections				
MEC106	HVAC III: Systems		Air distribution systems, measurement instruments and venting and sizing. Gas-fired equipment, furnaces, heating, ventilating, and air conditioning (HVAC) systems, and electric heating systems. Alternating current (AC) motors, circuit components and testing instruments. Maintenance, safety, troubleshooting, and service techniques. Job documentation and customer relations	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MEC107	Residential and Industrial Plumbing II		Application of advanced plumbing calculations to include percentages, conversions, fractions, decimals, square roots, circles, angles, measurement. First aid, personal safety, and Occupational Safety and Health Act (OSHA) guidelines. Materials handling, usage, advantages, and disadvantages. Fixtures I, II, III, fittings, accessories, and valves. Blueprint reading and freehand, finished, and detailed sketching	Prerequisites: A grade of C or better in MEC105.		Occ	LEC 5.0 5.0 5.0
MEC108	Residential and Industrial Plumbing III		Water piping materials. Sources and treatment of public, private, and individual water systems. Water distribution and supply systems. Cross-connection protection and pipe identification. Hot water heaters. Sanitary drainage systems. Plumbing calculations and blueprint reading.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MEC118	Residential and Industrial Plumbing IV		Properties of water and plumbing traps. Air, air chamber, and sizing.	Prerequisites: Registered apprentice		Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			High and low level pressure measurement. Manometer, gauge selection and use. Vibration, turbulence, and water hammer. Roof, floor and area drains. Oil and gas fuel systems.	status or permission of Apprenticeship Coordinator.			
MEC119	Basic Safety	ABC119	Overview of safety rules and procedures for working on construction job sites	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
MEC120	Basic Calculations for Construction	ABC120 PNT120	Addition, subtraction, multiplication and division of whole, decimal, fraction and metric numbers. Percentage and fraction conversions. Metric units of length, weight, volume and temperature. Metric system as it relates to the construction trade. Basic algebra and geometry operations and equations. Area and volume calculations of shapes.	Prerequisites: None.		Occ	L+L 1.5 1.5 1.5
MEC121	Introduction to Hand and Power Tools	ABC121 PNT121	Overview of the use, maintenance and safety procedures for common hand and power tools.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
MEC122	Rigging Safety and Equipment	ABC122	Rigging safety, equipment and inspection. Includes crane hand signals, common rope knots, types of derricks and cranes and safety procedures for rigging and moving materials and equipment	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
MEC124	HVAC IV: Equipment, Devices,		Heat transfer and human comfort. Humidifiers and humidity. Air filters and	Prerequisites: Registered apprentice		Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Compressors and Pumps		air filter friction loss. Metering devices and expansion valves. Thermal expansion valves. Compressors and heat pumps. Installation, adjustment, replacement, service, troubleshooting. Reverse-cycling. Leak detection, evacuation, recovery, and charging heating, ventilating, and air conditioning (HVAC) systems. Service equipment of HVAC systems.	status or permission of the Apprenticeship Coordinator.			
MEC201	HVAC V: Maintenance and Troubleshooting		Tools, instruments, equipment, components, procedures, materials, and tasks for preventative maintenance and troubleshooting of heating, ventilating and air conditioning (HVAC) systems. Microprocessor, gas, electric, and oil heating systems. Furnaces, electric heater packages for cooling, and heat pumps.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MEC203	HVAC VI: Troubleshooting Heating and Cooling Systems		Cooling and heating systems; heat pumps, Heating, Ventilation and Air Conditioning (HVAC) systems and accessories. Commercial heating and cooling systems. Air and water balancing systems. Steam systems. Customer relations.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MEC205	Residential and Industrial Plumbing V		Gas and plumbing code requirements. Residential, commercial, industrial, institutional plumbing practices. Fixtures, appliances, fixture fittings, valves, and trim. Gas piping installation, pipe sizing, pipe fittings and connections, appliances,	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			regulators, meters, controls, and corrosion. Advanced plumbing calculations. Specific plumbing systems and specialized water systems				
MEC206	HVAC VII: Air Quality and Energy Conservation		Advanced blueprint reading. Architectural, plumbing, mechanical, and electrical drawings. Submittal, transfer and design. Indoor air quality. Heating, Ventilating and Air Conditioning (HVAC) equipment, components, accessories and systems. Introduction to computers and computer networks. Energy conservation and management.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MEC207	Residential and Industrial Plumbing VI		Advanced plumbing calculations. Offsets, tank capacities, volume and weight, ratios and proportions, sizing, and piping expansion. Energy, temperature, heat transfer, stratification, multiple heaters, and recirculation. Basic electricity and troubleshooting. Safety, current, motors, circuits, humidity and condensation. Plumbing, electrical, heating/ventilation/air conditioning (HVAC), and detail blueprints. Specialized plumbing	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MEC208	Residential and Industrial Plumbing VII		General considerations, leaks and drainage. Installation, repair, and service of residential, commercial, industrial, and institutional heating systems. In-ground and above-ground water piping, drainage, waste and vent. Fuel gas piping, lead products, water heaters, waste	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			stoppages, and water hammer. Blueprint reading. Installation of waste systems. Interceptors and backwater valves. Heating systems. Water protection, and conservation in heating systems				
MEC218	Residential and Industrial Plumbing VIII		Hydraulic and plumbing theory. Pumps, uses, and design. Pump performance curves, pump installation, and maintenance. Advanced blueprint reading, sketching, and material estimating. Plumbing code. Installation code requirements. Specialty plumbing	Prerequisites: A grade of C or better in MEC208.		Occ	LEC 5.0 5.0 5.0
MEC224	HVAC VIII: Water Treatment and HVAC Design		Water problems, remedies, maintenance, and treatment. Commercial water and steam systems. Inspection and evaluation. System start up and shutdown. Cooling towers; evaporative condensers, boilers, chillers, air handlers and forced air systems. Components, accessories and design factors. Refrigerants and oils. Load calculations. Commercial and industrial refrigeration.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MFC101	Technical Documentation		Analysis and interpretation of technical drawings (prints) common to manufacturing. Mathematical calculations for determining dimensions. Introduction and application of geometric dimensioning and tolerancing (GD&T).	Prerequisites: None.		CLK	81
MFC110	Inspection Techniques		Set-up and use of inspection tools and equipment per current industry standards.	Prerequisites: None.		CLK	67

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Selection, completion and interpretation of information from inspection forms.				
MFC111	Geometric Dimensioning and Tolerance (GDT)		Controls of geometric dimensioning and tolerance (GDT) including the form, orientation, profile and location. Includes qualifying controls per engineering documentation for the American Society of Mechanical Engineers (ASME) Y14.5 2009 Standard.	Prerequisites: None.		CLK	102
MFC113	Coordinate Measuring Machines I		Fundamentals and general aspects of coordinate measuring machines (CMM). Basic measuring techniques and operation, including conformance to geometric dimensioning and tolerancing requirements using both manual and programmable (automatic) coordinate measuring machines.	Prerequisites: None.		CLK	81
MFC120	Introduction to Manual Machining		Introduces manual machining operations related to drilling, grinding, sawing, milling, and lathe processes. Development of fundamental skills, practices and safety applications in working with manual machine tools, hand tools, and related equipment common to manufacturing. Provides theoretical and practical experiences related to the machining of various material types to produce a product to industry standards.	Prerequisites: None.		CLK	157
MFC130	CNC Machine Operator		Designed to provide a fast-track to fundamental knowledge and skills necessary for entry-level, machine operator	Prerequisites: None.		CLK	150

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			positions. Introduction to print reading, inspection, and safe startup and operation of multi-axis computer numerical control (CNC) machines. Topics include two and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.				
MFC131	CNC Machining Level I		Introduction to safe startup and operation of multi-axis computer numerical control (CNC) machines. Topics include two and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: None.		CLK	203
MFC131DC	CNC Machining Level I		Introduction to safe startup and operation of multi-axis computer numerical control (CNC) machines. Topics include two and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: None.		CLK	216
MFC140	Manual CNC Programming		Introduction to manual computer numerical control (CNC) programming of word address language (G&M code) for CNC machine tools. Multi-axis CNC programming for CNC controlled machines. Computer based tool path verification, CNC controller tool path verification and CNC machine tool program verification.	Prerequisites: None.		CLK	67
MFC140DC	Manual CNC Programming		Introduction to manual computer numerical control (CNC) programming of word	Prerequisites: None.		CLK	67

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			address language (G&M code) for CNC machine tools. Multi-axis CNC programming for CNC controlled machines. Computer based tool path verification, CNC controller tool path verification and CNC machine tool program verification.				
MGT101	Techniques of Supervision		Overview of the foundations of supervision and how to get things done within an organization through other people. The functions of planning, organizing, staffing, motivating and controlling presented	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MGT105	Leadership for Citizenship		Characteristics and types of leaders, responsibilities of leadership, and ethics of leadership as related to citizenship	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
MGT109	Development of Professional Skills and Standards		Explores the skills and qualities necessary to develop and maintain a successful professional life. Topics include management/leadership skill development, effective job search, image development, career advancement, gender issues, professional conduct, time/financial management, and human relations	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
MGT126	Customer Service Skills and Strategies		Explores strategies to help improve job performance and develop a service-oriented philosophy. Uses practical training concepts and techniques to demonstrate how superior customer service can lead to competitive advantage and profitability in business. Focuses on both internal and	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			external customers, interactions among people, processes, and systems within the organization and how to integrate these areas into a total quality delivery program				
MGT147	Supply Chain Management		Supply chain management, including basic concepts and underlying principles of logistics and inventory management	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MGT148	Office Ethics and Culture		Ethical issues and standards in the office; making ethical choices. Relationships and attitudes in the office. Office politics.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
MGT157	Introduction to Statistical Analysis of Clinical and Bioscience Data for Managers		Introduction to basic concepts and applications of statistics, including data description, estimation probability as techniques for managing, collecting, summarizing and interpreting data. Includes the use of statistical computer software (e.g., SAS) used for the management, analysis and reporting of clinical and bioscience informatics data.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
MGT160	Project Management		Examination of concepts and methodologies for effective project management. Project planning and management from contract negotiations through project completion, including communications, human resources, management, and project scheduling as well as risk and financial management	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 3.0 3.0
MGT175	Business Organization and Management		Covers basic principles of managing quality and performance in organizations. Covers management functions:	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			planning, organizing, leading, and controlling. Emphasizes continual improvement, ethics, and social responsibility				
MGT180	Retail Management		The role of management in retailing and retail performance. Challenges and processes of retail management across various institutions.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MGT227	Training and Instructional Design for Health Information Technology		Overview of learning management systems, instructional design software tools, teaching techniques and strategies, evaluation of learner competencies, maintenance of training records, and measurement of training program effectiveness.	Prerequisites: Permission of Program Director or Instructor.		Occ	LEC 3.0 3.0 3.0
MGT228	Management, Planning, and Leadership for Health Information Technology		Principles of leadership and effective management of teams for Health Information Technology. Emphasis on the leadership modes and styles best suited to IT deployment. Survey of health care and public health organization and delivery in the United States, with an emphasis on professional roles, legal, ethical, and regulatory issues, and payment systems. Analysis of health reform initiatives in the U.S. Concept of "meaningful use" of electronic health records.	Prerequisites: A grade of C or better in GBS110 or MGT251 or Corequisites: GBS110 or MGT251.		Occ	LEC 3.0 3.0 3.0
MGT229	Management and Leadership I		Covers management concepts and applications for business, industry, and government organizations.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social-Behavioral Sciences [SB]	Occ	LEC 3.0 3.0 3.0
MGT230	Management and Leadership II		Includes practical applications of activities, issues, and problems	Prerequisites: A grade of C or better in	Course Attribute(s): General	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			related to current managerial and supervisory skills and talents.	MGT229 or permission of Department or Division.	Education Designation : Social-Behavioral Sciences [SB]		
MGT242	Project Scope and Procurement Management		Scope management and procurement management in a project environment, including how a project's scope is planned, defined, and verified. Concepts of scope change management. Concepts of procurement management, including procurement planning, supplier solicitation, supplier selection, contract administration, and contract closeout	Prerequisites: A grade of C or better in TQM240 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
MGT243	Project Time and Cost Management		Time management and cost management in a project environment, including activity definition, sequencing and duration estimating. Schedule development and specific tools to support schedule creation and control. Project cost management including resource planning, cost estimation, cost budgeting, and cost control	Prerequisites: A grade of C or better in TQM240 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
MGT244	Project Risk and Quality Management		Risk management and quality management in a project environment, including risk identification, risk aversion, and risk response planning. Presents techniques to perform risk analysis and risk response planning on projects. Concepts of quality management including quality planning, quality assurance and quality control. Concepts of quality systems and their	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			applicability to project management				
MGT245	Project, Human Resources and Communications Management		Concepts of human resource management and communications management in a project environment, including project organizational planning, staff acquisition and team development. Concepts of project communications planning, information distribution, performance reporting, and project closeout	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
MGT246	Principles of Project Management		Project Management principles expected of a Project Management Professional (PMP). Includes an overview of exam format, topics, and study techniques. Focus is on project scope, procurement, time, risk, cost, quality, human resource, communication, and integration management	Prerequisites: A grade of C or better in TQM240 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
MGT251	Human Relations in Business		Analysis of motivation, leadership, communications, and other human factors. Cultural differences that may create conflict and affect morale individually and within organizations.	Prerequisites: None. MGT101 or MGT175 or MGT229 suggested but not required.		Occ	LEC 3.0 3.0 3.0
MGT253	Owning and Operating a Small Business		Starting, organizing, and operating a small business, including location, finance management processes, advertisement and promotion, credit, inventory control and ethics	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MGT270AA	Management Internship		Management work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MGT270AA may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 0.0
MGT270AB	Management Internship		Management work experience in a business	Prerequisites: Permission of	MGT270AB may be	Occ	L+L 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			or industry. 80 hours of designated work per credit.	Department or Division.	repeated for a total of six (6) credit hours.		
MGT270AC	Management Internship		Management work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MGT270AC may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 3.0 0.0
MGT276	Human Resources Management		Human resource planning, staffing, training, compensating, and appraising employees in organizations.	Prerequisites: None. MGT101 or MGT175 or MGT229 suggested, but not required.	MGT101 or MGT175 or MGT229 suggested but not required.	Occ	LEC 3.0 3.0 3.0
MGT277	Labor Relations		Covers the historical, legal, and environmental parameters surrounding current labor/management relations, including contract negotiations and grievance procedures.	Prerequisites: None. MGT101 or MGT175 or MGT229 suggested but not required.		Occ	LEC 3.0 3.0 3.0
MGT286	Human Resource Employment Management		Techniques and methodology for coordinating and monitoring effective employment selection practices. Includes description of employment functions, staffing analysis, employment recruitment and advertising, applicant screening, interviewing and reference checking, employee selection and placement within a human resources division	Prerequisites: A grade of C or better in MGT276 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
MGT289	Professional in Human Resources Test Preparation		Preparation for testing for Professional in Human Resources (PHR) certification. Includes responsibilities of the PHR in the development, implementation and management of budgets, workforce planning and employee training. Also	Prerequisites: None.	MGT289 is specifically intended to prepare students to sit for the PHR exam. Students are responsible for knowing	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			covers compensation and employee relations issues and responsibilities.		the work-related requirements that the Human Resource Certification Institute (HRCI) has for all those who wish to take the certification exam.		
MGT290	Leadership Through Continuous Improvement: Leading Self		This course focuses on creating a culture of continuous improvement, problem solving and Kaizen thinking. Upon completion of this course the student will be able to create and facilitate a Huddle Board Meeting, conduct Gemba Walks, implement principles of total systems thinking, conduct 5S organizing principles, and problem solving techniques.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
MGT291	Supervisor Essentials: Aspire to Lead		This course will introduce students to the essential tools and resources needed to be an effective supervisor. Emphasis on the important role leaders play in the success of an organization through compliance training, knowledge of work culture, and demonstrating traits of effective leaders.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
MGT292	Employee Coaching and Development: Leading Others		Upon completion of this course, students will be able to utilize leadership and coaching skills along with ADOT's development tools and resources to cultivate and improve employee skills and team development and reward success.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MGT293	Collaborative Leadership: Leading Teams		This course focuses on the framework for how to effectively hire the right people and create a positive, engaging, growth environment that promotes employee retention. Upon completion of this course the student will be able to utilize emotional intelligence and humble inquiry to improve accountability, performance, collegiality and morale among groups to build more effective and productive teams.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
MGT296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
MGT296W B	Cooperative Education		Work-college experiences that involve	Prerequisites: Completion		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
MGT296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
MGT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
MGT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
MGT298AC	Special Projects		Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of Program		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
MHL130	Herstory: Women in Popular Music		Overview of the contributions made by women in the evolution of popular music and its industry	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
MHL140	Survey of Music History		Study of composers, compositions, styles, and periods in music history.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
MHL143	Music in World Cultures		Non-European musical traditions including the study of music in rituals, musical instruments and the impact of cultures on musical styles	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
MHL145	American Jazz and Popular Music		The study of cultural and social contributions to the evolution of American jazz and popular music from the mid-1800's to present.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity -	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					[C] General Education Designation : Humanities, Arts and Design - [HU]		
MHL146	Survey of Broadway Musicals		Survey of Broadway musicals traced from their origins to the present viewed in their cultural, political, and socioeconomic contexts. Emphasis on stylistic periods, composers, lyricists, directors, and choreographers.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
MHL147	Music of African-American Cultures		African-American music traced from its origin in Africa to the present. Includes spirituals, blues, gospel, jazz, and classical style.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
MHL153	Rock Music and Culture		History of Rock music and how cultural, social, political, and economic conditions have shaped its evolution.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
MHL155	Survey of American Music		History of the music of North America from the earliest American Indian music to the present. Introduction to the musical trends, composers, socioeconomic developments and trends, musical forms and styles that influence our modern American musical sense.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H] General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					: Humanities, Arts and Design - [HU]		
MHL156	Music in Latin America and the Caribbean		To discuss the role of music in Latin and Caribbean cultures and the impact of these cultures on music. To present a historical survey to the evolution and development of musical styles from rumba to reggae. Among the topics, and to include: origins, gender, race, ethnicity, politics, elements of music, instruments, both sacred and secular music, and significant individuals influencing the evolution of many different genres of music in Latin America and Caribbean cultures.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
MHL194	Music and Culture		Introduction to the study of multicultural music in its social, cultural, historical and economic contexts. Performance of music using percussion, rhythm, and the human body. Historical and social aspects of global cultures' musical expressions.	Prerequisites: A grade of C or better in MTC101 or a higher level MTC course; or Corequisites: MTC105 and MTC106 or permission of Instructor.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
MHL204	Hip-Hop Music and Culture		A history of Hip-Hop's musical and artistic elements and how cultural, social, political, and economic conditions have shaped its evolution.	Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L] General Education Designation : Cultural Diversity -	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					[C] General Education Designation : Humanities, Arts and Design - [HU]		
MHL241	Music History and Literature to 1750		In-depth study of music history from the primitive era through the Baroque period.	Prerequisites: A grade of C or better in MTC155 and MTC156 or Corequisites: MTC155 and MTC156 or permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
MHL242	Music History and Literature 1750 to Present		In-depth study of music history from the Classical period through the Contemporary period	Prerequisites: A grade of C or better in MHL241 or permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
MHL295	Topics in Music		Exploration of selected topics in music. Focuses on a theme, era, genre, concept, or critical approach. Analysis and interpretation of topic's representation, development, and significance in a variety subjects related to music humanities. Includes reading, listening analysis and interpretation of music and musical texts.	Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] MHL295 may be repeated for a total of nine (9) credit hours.	Acad	LEC 3.0 3.0 3.0
MHL298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
MIC101	Fundamentals of Healthcare Interpreting		This course introduces the field of interpreting, interpretation models, cognitive processes associated with interpretation, professional ethical standards, employment opportunities, bilingual customer service, and working conditions. Topics include pronunciation, medical vocabulary, resources, legal issues, code of ethics, standards of practice, certification, interpreter assessments/qualifications, and protocol associated with various settings. Upon completion, students should be able to interpret English/Spanish and Spanish/English simulated health care encounters, explain how to prepare for and manage an interpreted encounter, and apply ethical standards to a variety of working situations.	Prerequisites: 1. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. 2. Receive a 'Pass' on the bilingual oral exam.		CLK	80
MIC103	Medical and Clinical Development		Basic anatomy, physiology, and medical terminology in Spanish and English for health care settings. Emphasis on pronunciation of commonly used medical abbreviations for medical specialists and branches of medicine. Students will analyze, define, and correctly spell medical	Prerequisites: MIC101 or SPA205 with a C or better, or with Program Manager approval.		CLK	80

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			terms and abbreviations. Systems to be covered are: cardiovascular, respiratory, digestive, musculoskeletal, genitourinary, endocrine, immune, and nervous. Common test procedures for each system. Cancer and first response interpretation roles will also be covered. Students also participate in activities to prepare for clinical externships, taken by in-person simulation or in person at a clinical site. Students will review professional conduct, dress code, bilingual customer service, and downtime activities.				
MIC104	Medical Spanish/English Interpreting		This course covers Spanish/English interpreting in a medical context and setting. The course introduces the field of interpreting, interpretation models, cognitive processes associated with interpretation, professional ethical standards, bilingual customer service and working conditions. Students will focus on pronunciations, medical terminology, resources, legal issues, code of ethics, standards of practice, certification requirements, interpreter assessments/qualifications and protocol associated with various settings. Students will also focus on review of professional conduct and first response interpretation. Upon completion, students should be able to interpret English/Spanish and Spanish/English simulated health care	Prerequisites: Program admission. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. Receive a 'Pass' on the bilingual oral exam.		CLK	80

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			encounters, explain how to prepare for and manage an interpreted encounter, and apply ethical standards to a variety of settings. This course is designed and aligned with the purpose of preparing students to take the Certification Commission for Healthcare Interpreters (CCHI) certification exam and earn their CCHI certification.				
MIC105	Medical Interpreter: Professional Externship		Practical training and application of healthcare interpreting under direct supervision of clinical or hospital preceptor. Students will train with staff interpreters or dual-role interpreters. Documentation of daily interpreter attendance logs and a satisfactory performance evaluation are required to successfully complete the externship. Students must meet the clinical facilities requirements prior to beginning. Externship hours will vary and students are expected to travel and have reliable transportation.	Prerequisites: 1. A grade of C or better in (MIC101 and MIC103), or (SPA205 and SPA206), or MIC104, or permission of Program Manager. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check Policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance	Externship hours are site specific and may require attendance any day of the week, including during unschedule d days and times. Students must have reliable transportati on.	CLK	40

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				throughout the externship(s). 4. Complete and submit the Allied Health Student Health and Safety Documentati on Checklist, with included documentatio n 5. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentatio n.			
MIC106	Medical Interpreter: Simulated Clinical Practicum		Practical training and application of healthcare interpreting through simulated clinical experiences. Students will conduct a total of 40 hours of simulated clinicals where they will interpret on behalf of the patient and healthcare staff. Students will receive daily performance evaluations and must successfully complete all competencies and attendance requirements to successfully complete this course. Students who are enrolled in the Medical Interpreter-Spanish program or the Spanish Interpreting for Healthcare Professionals program are required to either complete an externship at a clinical site or a simulated	Prerequisites: A grade of C or better in (MIC101 and MIC103), or (SPA205 and SPA206), or MIC104, or permission of Program Manager.	Simulated clinical hours are campus location specific and conducted in a face-to-face or virtual modality. This may require attendance any day of the week, including evenings or weekends.	CLK	40

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			clinical interpreting experience as part of the certificate of competency as well as maintain eligibility for the national certification exam through the Commission of Certified Healthcare Interpreters (CCHI).				
MIS101	Introduction to the United States Army		Introduces the personal challenges and competencies that are critical for effective leadership and communication. Students learn how the personal development of life skills such as cultural understanding, goal setting, time management, stress management and comprehensive fitness relate to leadership, officership and the Army profession. Focuses on developing basic knowledge and comprehension of Army leadership dimensions, attributes and core leader competencies while gaining an understanding of the Army ROTC program, its purpose in the Army, and its advantages for the student. Includes physical training assessments, tactical training, as well as lecture-based instruction.	Prerequisites: None.		Acad	LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0
MIS102	Foundation of Agile and Adaptive Leadership		Introduces the professional challenges and competencies that are needed for effective execution of the profession of arms and Army communication. Through this course, students learn how ethics and values shape the Army and the specific ways that these ethics are inculcated into	Prerequisites: A grade of C or better in MIS101.		Acad	LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Army culture. Explores the seven Army values and the warrior ethos, investigate the profession of arms and Army leadership as well as an overview of the Army, and gains practical experience using critical communication skills. Includes physical training assessments, tactical training, as well as lecture-based instruction.				
MIS201	Army Leadership and Decision Making		Academically challenging course where students study, practice and apply the fundamentals of Army leadership, officership, Army values and ethics, personal development and small-unit tactics at the platoon level. Requires the student to demonstrate writing skills and present information briefings as preparation for development in becoming a successful future officer. Includes reading assignments, homework assignments, small group assignments, briefings, case studies, practical exercises, a mid-term exam and final exam. Also includes physical training assessments, tactical training, as well as lecture-based instruction.	Prerequisites: A grade of C or better in MIS101 and MIS102.		Acad	LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0
MIS202	Army Doctrine and Team Development		Academically challenging course where students study, practice and apply the fundamentals of the leadership, officer skills, Army values and ethics, personal development and tactics at the small-unit level. Focuses on	Prerequisites: A grade of C or better in MIS101, MIS102 and MIS201.		Acad	LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			cross-cultural competencies as they relate to Army doctrine and how they apply in a combatant commander's engagement strategies. Stresses Army values, teamwork and warrior ethos and their relationship to the law of land warfare and philosophy of military service. Covers the ability to lead and follow through team building exercises in small units up to squad level. Requires the student to demonstrate writing skills and present information briefings as preparation for development in becoming a successful future officer. Also includes physical training assessment, tactical training, as well as lecture-based instruction.				
MIT106	Industrial Safety	GTC106 OSH106	Safety, health management, and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of safety and health hazards accident prevention, management responsibilities, and OSHA 10 certification.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
MIT112	Natural Gas Pipeline Operations		Introduction to the fundamentals of the natural gas pipeline operations. Includes topics such as damage prevention, emergency response, valve	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			operation, and testing of facilities. This course prepares students for the Non-Joiner Operator Qualification in the natural gas pipeline industry.				
MIT113	Natural Gas Pipe Joiner		Principles and practices of plastic pipe joining in the natural gas industry. Includes pipe joining techniques such as solvent cements, heat fusions, mechanical saddle fittings, and compression couplings. This course prepares students for Pipe Joiner Qualification in the natural gas industry.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MIT120	Industrial Technology Fundamentals		Theories and concepts in industrial technology basics and OSHA 10 certification. Introductory concepts in industrial math, hand and power tools, technical drawings, rigging, and materials handling. Emphasis on communication and employability skills. Included labs emphasize and anchor the course material. Safety and management expectations. Defense in depth strategy and conduct of verifications. Maintenance procedures. Work control process. Performance of work standards and documentation including pre-job preparation, pre-job notification, job review, job verification and job close out specific to nuclear power plant operations.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
MIT121	Industrial Technology I-A		Principles of Industrial Maintenance Technology. Modules include theory and applications in tools of	Prerequisites: A grade of C or better in MIT120 or Corequisites:		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the trade, fasteners and anchors, oxyfuel cutting, gaskets and packing, technical mathematics, and technical drawings. Included labs emphasize and anchor the course material.	MIT120 or permission of Instructor.			
MIT122	Industrial Technology I-B		Principles of Industrial Maintenance Technology. Modules include theory and applications in pumps and valves, test instruments, rigging, mobile and support equipment, and lubrication. Included labs emphasize and anchor the course material.	Prerequisites: A grade of C or better in MIT120 or Corequisites: MIT120 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
MIT123	Industrial Mechanical Technology II-A		Basic layout, introduction to piping components, copper and plastic piping practices, introduction to ferrous metal piping practices, identifying, installing and maintaining valves, hydrostatic and pneumatic testing, introduction to bearings, and low-pressure steam systems. Included labs emphasize and anchor the course material.	Prerequisites: A grade of C or better in MIT122 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
MIT124	Industrial Mechanical Technology II-B		High pressure steam systems and auxiliaries, distillation towers and vessels, heaters, furnaces, heat exchangers, cooling towers, fin fans, and introduction to tube work. Included labs emphasize and anchor the course material.	Prerequisites: A grade of C or better in MIT122 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
MIT133	Industrial Electrical and Instrumentation Technology II-A		Industrial safety for E and I technicians, introduction to the National Electrical Code, electrical theory, alternating current, electrical and instrumentation test equipment, flow, pressure, level, and	Prerequisites: A grade of C or better in MIT122 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			temperature. Included labs emphasize and anchor the course material.				
MIT134	Industrial Electrical and Instrumentation Technology II-B		Process mathematics, hand bending, tubing, clean, purge, and test tubing and piping systems, instrument drawings and documents, conductors and cables, and conductor terminations and splices. Included labs emphasize and anchor the course material.	Prerequisites: A grade of C or better in MIT122 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
MIT209	Automated Manufacturing	GTC209	Evolution of automation in manufacturing from fixed (hard) automation to Computer Integrated Manufacturing (CIM) is presented with numerical control (NC) ; computer-aided design/computer-aided manufacturing (CAD/CAM); automated material handling; automation communication protocol. Manufacturing management strategies include statistical process control (SPC); material requirements planning (MRP); manufacturing resource planning (MRPII); and just-in-time (JIT). Hands-on experience with programmable logic controllers (PLC) and robotics included	Prerequisites: A grade of C or better in ELT131 or ELE131 or GTC/MET206 or equivalent.		Occ	L+L 3.0 6.0 6.0
MKT101	Introduction to Public Relations		Emphasizes public relations techniques used both within and outside the business organization, including operation of a PR counseling firm	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MKT109	Introduction to Fashion Merchandising	TEC109	Explores the various levels and specialized segment of the fashion industry, the principles of fashion, the fundamentals of	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			merchandising apparel, consumers' influence on demand and marketing activities.				
MKT110	Marketing and Social Networking		Theory and practice in the use of social media in marketing. Topics may include a history of social media, preparation for social marketing, the power of collective influence, and how to engage with social media. Reviews social mediums, social networks, platforms and other marketing tools used to create a social media campaigns.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MKT111	Applied Marketing and Social Networking		Examination of the strategic use of digital and social media marketing platforms and tools for global communication and networking, including analysis of various digital and social media platforms and tools for developing brands, creating professional networks and creating engaging content. Hands-on use of social media platforms and tools to conduct research, develop strategies for creating, integrating, and evaluating social media marketing campaigns, and development of metrics to measure effectiveness.	Prerequisites: A grade of C or better in MKT110.		Occ	L+L 3.0 4.0 4.0
MKT112	Retail Customer Service		Introduction to the field of retail sales. Emphasis on customer service and sales techniques	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
MKT114	Retail Inventory Control		Retail inventory control procedures. Emphasis on the role of the professional sales associate within a retail company and in the handling of merchandise	Prerequisites: A grade of C or better in MKT112.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MKT151	Display and Visual Merchandising	TEC151	An examination of the principles of design including line, color, balance, and texture as they relate to the display of merchandise. Participation in displays, field trips, and individual projects	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
MKT200	Retail Buying	TEC200	Examines management/buyer role in investment, pricing, planning, controlling sales and inventories Any BPC/CIS spreadsheet course recommended.	Prerequisites: None. A grade of C or better in any BPC/CIS spreadsheet course recommende d.		Occ	LEC 3.0 3.0 3.0
MKT263	Advertising Principles		Introduces the advertising function within business, including media study, creative strategies, and advertising campaigns MKT271 suggested, but not required.	Prerequisites: None. MKT271 suggested but not required.		Occ	LEC 3.0 3.0 3.0
MKT267	Principles of Sales		Analyzes and applies the steps and techniques used in personal selling. Highlights the role of the professional sales representative and his/her functions as they relate to the company's mission and customer expectations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MKT268	Merchandising		Surveys structure and operation of retail organizations. Emphasizes merchandising to include price, location, time promotion and quantity.	Prerequisites: None. MKT271 suggested but not required.		Occ	LEC 3.0 3.0 3.0
MKT271	Principles of Marketing		An analysis of the marketing process and environment with regard to the product, pricing, distribution, and communication in order to satisfy buyer needs	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MKT273	Marketing Research		Planning and preparing for a marketing research effort and presentation of research findings in a professional manner. Includes the study of	Prerequisites: A grade of C or better in MKT271 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			problem definition, sampling methods, statistical analysis, presentation techniques, and evaluation of data				
MKT274AC	Fashion Merchandising Study Tour	TEC274A C	A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 15.0 3.0
MKT277	Advanced Sales		Advanced selling and communication techniques.	Prerequisites: A grade of C or better in MKT267 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
MKT280AA	Marketing Internship		Marketing work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MKT280AA may be repeated for a total of four (4) credits.	Occ	L+L 1.0 1.0 0.0
MKT280AB	Marketing Internship		Marketing work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MKT280AB may be repeated for a total of four (4) credits.	Occ	L+L 2.0 2.0 0.0
MKT280AC	Marketing Internship		Marketing work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MKT280AC may be repeated for a total of six (6) credits.	Occ	L+L 3.0 3.0 0.0
MKT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
MKT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
MKT296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
MKT296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students major or career interest or with permission of Instructor.			
MKT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
MKT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
MKT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
MMT184	Digital Animation I	AVC184	The art of animation (animated sequences, special effects, titles, etc.) using the computer. Construction characters, background graphics, color, scaling, storyboard, cells, timing, editing, and surface rendering. Screening and discussion of selected animated short films and videos.	Prerequisites: A grade of C or better in (ART111 or ART116) or permission of Instructor. Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
MMT185	3D Modeling and Animation I	AVC185	Basic concepts of 3D modeling. Anatomy of computer geometry; basic elements that make computer models- curves, surfaces, non-uniform rational basis spline (NURBS), and polygons. 3D translation, shading, materials, and rendering.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
MMT186	Modeling for Digital Media		Development of 3-D models for multimedia productions. 3-D logos, objects, and advanced animation projects using special effects.	Prerequisites: A grade of C or better in ADA/ART/M MT184 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0
MMT190	Art of Web Site Design	AVC190	Introduction to design production for websites. Layout, typography and presentation style for HTML (Hyper Text Markup Language). Design of mock-ups using digital design software to produce artistic form and content	Prerequisites: A grade of C or better in AVC100, or permission of Instructor. CIS133DA recommended.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			for the Web using Hyper Text Markup Language (HTML), digital text, and graphics. Discussion of color, proportion, typography and Web-specific design principles. Emphasizes design of cross-browser compatible interfaces that optimize usability, accessibility and browser interoperability.				
MMT216	Multimedia Project Management		Interactive video and multimedia project management including defining, analyzing, designing, and validating interactive/multimedia applications; building and managing development and production teams; planning, budgeting, and scheduling; interactive/multimedia authoring; project implementation; and writing RFPs (Request For Proposal).	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
MMT285	3D Modeling and Animation II	AVC285	Advanced techniques for 3D modeling and computer animation. Creating and applying 2D background and 3D model textures, creating and applying special effects to models and animation, designing, modeling, and animating a digital 3D character from a character study.	Prerequisites: A grade of C or better in AVC/MMT18 5.		Occ	L+L 3.0 6.0 6.0
MMT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
MMT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
MMT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
MNT110	Nanotechnology: What It Is and Why It Matters		Designed to provide students with a strong fundamental understanding of the scientific principles, processing, and applications of	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			nanotechnology. Includes the concepts of chemical bonding, quantum mechanics, and microstructure applied to various nanomaterials and their use in electronic devices, composites, computing, and various other biological, medical, energy-related, and current consumer applications. Introduces analytical techniques used in nanotechnology, as well as possible societal applications.				
MNT120	Introduction to Microelectromechanical Systems (MEMS)		Overview of fundamentals of the scientific principles, processing, and applications of microelectromechanical systems (MEMS). Covers topics in applications, fabrication methods, characterization, and commercialization concepts as well includes surface micromachining, patterning, etching and deposition processes in addition to cleanroom protocol and safety. Also covers research and documentation types and applications.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
MNT130	Introduction to Light and Lasers		Introduces the fundamentals of light, optics, and lasers. Covers the nature and properties of light (such as energy, amplitude, wavelength, frequency, period, phase, propagation). Addresses geometrical optics (reflection, diffraction, imaging, thin lens formula, lens maker's equation), wave optics (interference, diffraction, polarization), and the	Prerequisites: A grade of C or better in MAT114, or MAT115, or MAT12+, or MAT15+ or higher, OR an appropriate district placement for MAT15+ or higher, OR permission of Instructor or		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			basic principles and practical applications of lasers. Covers optical handling and positioning, light sources, laser classifications and safety. Contributes to knowledge and skills required for the Photonics Technician Operator certification exam.	Department/ Division Chair.			
MNT140	Careers and Professional Skills in Nanotechnology		Introduction to professional skills unique to the field of nanotechnology fabrication. Emphasis on teamwork, problem solving, cultural diversity in the workplace, communication, and continuous professional development.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
MNT201	Materials, Safety, and Equipment for Nanotechnology		Safety procedures and equipment used in the micro and nanotechnology industries. Covers chemical, biological, and energy safety protocol as well as infrastructure facilities and systems. Also includes an overview of the structural, chemical, and physical classification of materials.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
MNT210	Basic Nanotechnology Processes		Introduction to basic nanotechnology processes and a comparison of top-down and bottom-up manufacturing processes. Covers characteristics of plasma and its application to additive and subtractive processes. Also includes basic pattern transfer processes, laser ablation, and chemical and physical vapor deposition.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
MNT215	Micro and Nano Fabrication Tools and Techniques		Introduction to basic micro and nanotechnology tools	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and processes and a comparison of top-down and bottom-up manufacturing processes. Covers characteristics of plasma and its application to additive and subtractive processes. Also includes basic pattern transfer processes, laser ablation, and chemical and physical vapor deposition. Aligned with materials, synthesis, and processing standards recognized by ASTM International.				
MNT220	Materials in Nanotechnology		Examination of material used in the field of nanotechnology. Covers colloids, nanoparticles, oxides, and quantum dots in addition to self-assembly applications. Also includes biocompatibility and the dry etch material fabrication process.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
MNT225	Material Properties and Effects of Size		Examination of materials used in the field of nanotechnology. Covers nanoparticles, oxides, and dielectric materials selection and modification. Also includes biocompatibility and applications for macroscale surfaces and interfaces.	Prerequisites: A grade of C or better in MNT201 or permission of Instructor.	MNT225 aligns with the Standard Guide for Nanotechno-logy Workforce Education in Materials Properties and Effects of Size established by ASTM Internationa l.	Occ	L+L 3.0 4.0 4.0
MNT230	Patterning for Nanotechnology		Overview of patterning processes in nanotechnology. Includes photolithography techniques, technology, and tools. Covers photoresist applications and unique lithography techniques, including	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			block polymer patterning.				
MNT235	Nanotechnology Characterization Tools and Techniques		Overview of characterization tools and techniques for nanotechnology structures and materials. Includes procedures for light, physical, and electron beam characterization. Also includes tools and processes for advanced Scanning Probe Microscopy (SPM) and surface analysis. Aligns with ASTM Nano-Characterization standards and its exam. Additional applications enable students to prepare for certification examinations.	Prerequisites: A grade of C or better in MNT201 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
MNT240	Nanotechnology Applications		An introduction to the practical application of emerging technologies in nanoscience. Includes applications for health sciences, energy, manufacturing, electronics, the food industry, and the environment.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
MNT245	Advanced Topics in Light and Lasers		Advanced principles and applications of light and lasers. Addresses Photonic Integrated Circuits (PIC) concepts, materials, fabrication technologies, and applications. Describes silicon PIC and III-V semiconductor devices in addition to completion of applicable calculations. Addresses lasers and PICs in diverse applications in telecommunications, data servers, health and medical, and other fields.	Prerequisites: A grade of C or better in MNT130, or OPT105, or permission of Instructor. MAT182 is recommended but not required.		Occ	L+L 3.0 4.0 4.0
MNT250	Characterization of Nanotechnology Structures and Materials		Overview of characterization tools and techniques for nanotechnology structures and materials.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes in-situ and ex-situ characterization as well as procedures for light, physical and electron beam characterization. Also includes tools and processes for advanced Scanning Probe Microscopy (SPM) and surface analysis.				
MPT101	Technical Documentation		Analysis and interpretation of technical drawings (prints) common to manufacturing. Mathematical calculations for determining dimensions. Introduction and application of Geometric Dimensioning and Tolerancing (GD&T).	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
MPT101MP	Technical Documentation		Analysis and interpretation of technical drawings (prints) common to manufacturing. Mathematical calculations for determining dimensions. Introduction and application of Geometric Dimensioning and Tolerancing (GD&T).	Prerequisites: None.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0
MPT110	Inspection Techniques		Setup and use of inspection tools and equipment per current industry standards. Selection, completion and interpretation of information from inspection forms.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
MPT110MP	Inspection Techniques		Setup and use of inspection tools and equipment per current industry standards. Selection, completion and interpretation of information from inspection forms.	Prerequisites: None.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0
MPT111	Geometric Dimensioning and Tolerance (GDT)		Controls of geometric dimensioning and tolerance (GDT) including the form, orientation, profile and	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			location. Includes qualifying controls per engineering documentation for the American Society of Mechanical Engineers (ASME) Y14.5 2009 Standard.				
MPT111MP	Geometric Dimensioning and Tolerance (GDT)		Controls of geometric dimensioning and tolerance (GDT) including the form, orientation, profile and location. Includes qualifying controls per engineering documentation for the American Society of Mechanical Engineers (ASME) Y14.5 2009 Standard.	Prerequisites: None.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0
MPT113	Coordinate Measuring Machines I		Fundamentals and general aspects of Coordinate Measuring Machines (CMM). Basic measuring techniques and operation, including conformance to geometric dimensioning and tolerancing requirements using both manual and programmable (automatic) coordinate measuring machines.	Prerequisites: A grade of C or better in (MPT101 or MPT101MP) and (MPT110 or MPT110MP), or permission of Program Director.		Occ	L+L 3.0 4.0 4.0
MPT120	Introduction to Manual Machining		Introduces manual machining operations related to drilling, grinding, sawing, milling, and lathe processes. Development of fundamental skills, practices and safety applications in working with manual machine tools, hand tools, and related equipment common to manufacturing. Provides theoretical and practical experiences related to the machining of various material types to produce a product to industry standards.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (MPT101 or MPT101MP) and (MPT111 or MPT111MP), or permission of Program Director.		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MPT120MP	Introduction to Manual Machining		Introduces manual machining operations related to drilling, grinding, sawing, milling, and lathe processes. Development of fundamental skills, practices and safety applications in working with manual machine tools, hand tools, and related equipment common to manufacturing. Provides theoretical and practical experiences related to the machining of various material types to produce a product to industry standards.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (MPT101 or MPT101MP) and (MPT111 or MPT111MP), or permission of Program Director.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0
MPT130	CNC Machine Operator		Designed to provide a fast track to fundamental knowledge and skills necessary for entry-level machine operator positions. Introduction to print reading, inspection, and safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: None.		Occ	L+L 6.0 10.0 10.0
MPT130MP	CNC Machine Operator		Designed to provide a fast track to fundamental knowledge and skills necessary for entry-level machine operator positions. Introduction to print reading, inspection, and safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets	Prerequisites: None.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to produce a product to industry standards.				
MPT131	CNC Machining Level I		Introduction to safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: A grade of C or better in MPT120 or MPT120MP or permission of Program Director.		Occ	L+L 6.0 10.0 10.0
MPT131MP	CNC Machining Level I		Introduction to safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: A grade of C or better in MPT120 or MPT120MP or permission of Program Director.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0
MPT132	CNC Machining Level II		Safe setup and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include multi-axis programming, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: A grade of C or better in MPT130 or MPT130MP or MPT131 or MPT131MP or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
MPT132MP	CNC Machining Level II		Safe setup and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include multi-axis programming, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: A grade of C or better in MPT130 or MPT130MP or MPT131 or MPT131MP or permission of Program Director.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
MPT140	Manual CNC Programming		Introduction to Manual Computer Numerical Control (CNC) programming of Word Address Language (G&M Code) for CNC machine tools. Multi-axis CNC programming for CNC controlled machines. Computer	Prerequisites: A grade of C or better in (MPT130 or MPT130MP) or (MPT131 or MPT131MP) or machine shop		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			based tool path verification, CNC controller tool path verification and CNC machine tool program verification.	experience or permission of Program Director.			
MPT150	Introduction to SolidWorks		Introduction to CAD modeling, solid part generation, assembly of parts, and working drawing creation. Applications of CAD/CAM in Computer Integrated Technology (CIM).	Prerequisites: None.	Students interested in taking MPT250 Solid Design II: Advanced Part Modeling: SolidWorks are advised to take MPT151 Solid Design I: SolidWorks.	Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
MPT151	Solid Design I: SolidWorks		Introduction to solid modeling and parametric design of mechanical components. Use of SolidWorks commands. Creation of single part in two-dimensional (2D) sketch, three-dimensional (3D) solid. Feature based components and feature associativity. Initial preparation for the Certified Solid Works Associate (CSWA) exam.	Prerequisites: A grade of C or better in (MPT101 or MPT101MP) and (MPT111 or MPT111MP), or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
MPT152	Solid Design: Certified SolidWorks Associate/Certified SolidWorks Professional Test Preparation		Preparation for latest Certified SolidWorks Associate (CSWA) or Certified SolidWorks Professional (CSWP) exam. Includes exam objectives, solid design, assemblies, COSMOSXpress, and technical documentation in current version.	Prerequisites: Permission of Program Director.		Occ	L+L 1.0 2.0 2.0
MPT213	Coordinate Measuring Machines II		Advanced techniques and operation of Coordinate Measuring Machine (CMM). Includes alignments, Computer-Aided Design (CAD) use, program	Prerequisites: A grade of C or better in MPT113 or permission of Program Director.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			control, scanning, and dimensioning. Offline programming for operation of CMM. Conformance to geometric dimensioning and tolerancing and manufacturing documentation. Implementation of measurement strategies and time-saving techniques for creating measurement routines.				
MPT214	3D Scanning and Reverse Engineering: Geomagic		Principles of digital 3D Scanning and reverse engineering. Data acquisition of organic and mechanical components. Transformation of data into solid model geometry to create parts of equal or superior quality for machining or 3D printing.	A grade of C or better required in all Prerequisites. Prerequisites: MPT113 or permission of Program Director. Prerequisites or Corequisites: MPT151 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
MPT215	Workplace Quality Systems		History of quality systems and procedures. Benefits of ISO 9000 procedures. The twenty elements of ISO 9000. Components and requirements of the International Organization for Standardization (ISO) 9000 quality and periodic audits.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
MPT216	Applied Statistical Process Control Methods		Identification of quality characteristics derived from variable and attribute data. Usage of statistical rules for interpretation of control charts. Analysis and recommendation of appropriate actions on factors affecting process variation.	Prerequisites: A grade of C or better in MPT215 or permission of Program Director.		Occ	L+L 3.0 4.0 4.0
MPT217	Lean and Six Sigma Applied Concepts		Lean manufacturing and Six Sigma methodologies and	Prerequisites: A grade of C or better in		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			application to an organization. Identification of waste and application of cost to poor quality process within an organization. Quality System tools and implementation. Emphasis on organizational buy in.	MPT215 or permission of Program Director.			
MPT218	Advanced Quality Process Methods		High-level quality improvement process applied to manufacturing. Specific emphasis on experimental methods focused on waste reduction and general quality and process improvement. Understanding key process variables and decision-making methods based on established procedures. Applying statistical methods to process improvement.	Prerequisites: A grade of C or better in (MPT101, MPT110, MPT111, and MPT113), or permission of Program Director.		Occ	L+L 3.0 4.0 4.0
MPT220	Manual Machining: NIMS Level I Certification		Preparation for latest National Institute for Metalworking Skills (NIMS) Machining Level I certification in Drill Press, Manual Milling, Turning, and Grinding.	Prerequisites: A grade of C or better in MPT120, or MPT120MP, or permission of Program Director.		Occ	L+L 6.0 6.0 6.0
MPT221	Manual Machining: NIMS Level II Certification		Preparation for current National Institute for Metalworking Skills (NIMS) Machining Level II certification in Manual Milling, Turning, and Grinding.	Prerequisites: A grade of C or better in MPT220, or (Level I NIMS Certifications in: Drill Press, Lathe Between centers, Lathe Chucking, Mill, and Surface Grinding), or permission of Program Director.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MPT250	Solid Design II: Advanced Part Modeling: SolidWorks		Creating mechanical assemblies using SolidWorks design tools. Advanced feature tools including constraints and motion. Skill enhancement in the creation of advanced assemblies and part design, standard and advanced mates, and performing mass properties analysis.	Prerequisites: A grade of C or better in MPT151 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
MPT251	Solid Design: Documentation/GD&T: SolidWorks		Creation of engineering drawings. Parts and assemblies using associative mechanical design software. Principles and applications presented in accordance with the American Society of Mechanical Engineers (ASME) Y14 series of standards. Drawing sheets and templates, views, projections, dimensions and annotations, Geometric Dimensioning and Tolerancing (GD&T), assembly drawings, Bill of Materials (BOM), and assembly configurations.	Prerequisites: A grade of C or better in MPT151 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
MPT252	Solid Design: Simulation: SolidWorks		Principles of Finite Element Analysis (FEA), stress and gap analysis, and the Finite Element Method (FEM). Application of fixtures, loads, and connections to assemblies and models. Conducting static and dynamic simulation studies. Evaluation of simulation results and determination of Factor of Safety (FOS).	Prerequisites: A grade of C or better in MPT250 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
MPT253	Solid Design: Surface Modeling: SolidWorks		Creation and manipulation of freeform shapes and surfaces using SolidWorks mechanical design software. Surface body design using 3D sketch	Prerequisites: A grade of C or better in MPT250 or permission of Program Director.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			geometry and solid features. Verification of surface integrity and quality.				
MPT254	Solid Design: Sheet Metal: SolidWorks		Design of sheet metal parts and assemblies. Creation of sheet metal production drawings. Conversion of solid models to sheet metal. Creation of welded structures with standard structural members using SolidWorks Weldments feature. Design of weld beads and weld joints.	Prerequisites: A grade of C or better in MPT250 or permission of Program Director.		Occ	L+L 3.0 4.0 4.0
MPT255	Solid Design 3D Printing		3D printing/additive manufacturing with various additive manufacturing materials. Model orientation for optimal printing and 3D layer slicing, infill control, and orientation. Foundation and support structure design. Fused Deposition Modeling (FDM), Stereolithography Apparatus (SLA), and metal 3D printing.	Prerequisites: A grade of C or better in [(MPT111 or MPT111MP) and MPT250], or permission of Program Director.		Occ	L+L 4.0 5.0 5.0
MPT260	Computer Aided Manufacturing (CAM) I		Introduction to Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer programming for simultaneous 3-axis CNC machines, fourth and fifth positioning machining centers, and 2-axis turning centers.	Prerequisites: A grade of C or better in MPT130, or MPT130MP, or MPT131, or MPT131MP, or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
MPT260MP	Computer Aided Manufacturing (CAM) I		Introduction to Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry.	Prerequisites: A grade of C or better in MPT130, or MPT130MP, or MPT131, or MPT131MP, or permission		Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Computer programming for simultaneous 3-axis CNC machines, fourth and fifth positioning machining centers, and 2-axis turning centers.	of Program Director.			
MPT261	MasterCam Certified Programmer Mill Level I: Test Preparation: CPgM1		Review of the latest Certified Programmer Mill Level I (CPgM1) exam in preparation for exam. Competency of geometry construction, tool plane and work plane construction, Computer Numerical Control (CNC), milling tool path generation, and tool path verification with core Mastercam software.	Prerequisites: Permission of Program Director.		Occ	L+L 1.0 2.0 2.0
MPT262	Computer Aided Manufacturing (CAM) II		Advanced Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer programming for mill turns and five axis simultaneous machining centers.	Prerequisites: A grade of C or better in MPT260, or MPT260MP, or permission of Program Director.		Occ	L+L 3.0 5.0 5.0
MPT262MP	Computer Aided Manufacturing (CAM) II		Advanced Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer programming for mill turns and five-axis simultaneous machining centers.	Prerequisites: A grade of C or better in MPT260, or MPT260MP, or permission of Program Director.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0
MPT270	Tooling, Fixtures, and Gauges		Various types of tools, fixtures, and gauges and their function as related to manufacturing processes. Clamping and workholding principles as well as use of appropriate hardware.	Prerequisites: A grade of C or better in [(MPT120, or MPT120MP, or four National Institute of Metalworking Skills (NIMS)		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				in CNC Machining or Manual Machining) and (MPT150 or MPT151)], or CAD101, or CAD201, or Certified SolidWorks Associate (CSWA), or permission of Program Director.			
MPT282AA	Volunteerism for Manufacturing: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Program Director.	MPT282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 6.0 6.0	Occ	LAB 1.0 1.0 0.0
MPT282AB	Volunteerism for Manufacturing: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Program Director.	MPT282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 3.0 6.0	Occ	LAB 2.0 2.0 0.0
MPT282AC	Volunteerism for Manufacturing: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Program Director.	MPT282AC may be repeated for a total of six (6) credit hours. Standard grading available	Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					according to procedures outlined in catalog. Repeats 2.0 6.0		
MPT290AA	Manufacturing Production Internship		Construction internship office/field experience with private/public agencies or citizen volunteer groups. Eighty (80) hours of designated work experience.	Prerequisites: Permission of Program Director.		Occ	LAB 1.0 6.0 0.0
MPT290AB	Manufacturing Production Internship		Construction internship office/field experience with private/public agencies or citizen volunteer groups. One hundred and sixty (160) hours of designated work experience.	Prerequisites: Permission of Program Director.		Occ	LAB 2.0 12.0 0.0
MPT290AC	Manufacturing Production Internship		Construction internship office/field experience with private/public agencies or citizen volunteer groups. Two hundred and forty (240) hours of designated work.	Prerequisites: Permission of Program Director.		Occ	LAB 3.0 18.0 0.0
MPT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to student's major or career interest or with permission of Program Director.			
MPT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of Program Director.		Occ	LAB 2.0 10.0 0.0
MPT296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				<p>obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of Program Director.</p>			
MPT296W D	Cooperative Education		<p>Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.</p>	<p>Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career</p>		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				interest or with permission of Program Director.			
MPT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director.		Occ	LAB 1.0 1.0 0.0
MPT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director.		Occ	LAB 2.0 2.0 0.0
MPT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use.	Prerequisites: Permission of Program Director.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
MRT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
MRT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
MRT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
MSP101	Introduction to Mortuary Science		Designed to orient prospective students to mortuary science and its history, educational requirements, internships, licensure examination, job descriptions for funeral directors, embalmers and cremationists, and employment outlook.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
MSP105	Cremation for Mortuary Science		Overview of cremation topics, including proper procedures, legal considerations, services, merchandise, trends, and the history of cremation.	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0
MSP201	History and Sociology of Funeral Service		Survey of history of funeral service from ancient to modern times. Sociological aspects of how various cultures deal with death.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0
MSP202	Embalming		Study of the disinfection, preservation and restoration of the deceased human body by chemical means for the specific purpose to delay organic decomposition.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0
MSP202LL	Embalming Lab		Field experience involving observation and practice of embalming processes in a laboratory setting. Includes writing case study reports.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: MSP202 and admission to the Mortuary		Occ	LAB 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Science program.			
MSP203	Microbiology for Mortuary Science		Survey of microbiology as it pertains to mortuary science and the funeral service profession. Review of safety precautions, sanitation practices, and pathogens that can lead to illness or death.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0
MSP204	Chemistry for Mortuary Science		Basic principles of general chemistry, organic chemistry, biochemistry, embalming chemistry, and toxicology as it relates to mortuary science. Safety practices regarding potentially harmful chemicals.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0
MSP205	Mortuary Administration I		Funeral directing and establishing professional relationships with religious leaders and family members. Includes documentation procedures from time of death to funeral.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0
MSP206	Mortuary Administration II		Operation of the established funeral home, including principles and product knowledge in the area of funeral service management and merchandising.	Prerequisites: A grade of C or better in MSP205.		Occ	LEC 3.0 3.0 3.0
MSP207	Mortuary Science Restorative Art		Care and restoration of the deceased human body to create natural form and appearance. Includes anatomical aspects and color theory.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0
MSP207LL	Mortuary Science Restorative Art Lab		Practice care and restoration of the deceased human body to create natural form and appearance in a laboratory setting. Includes anatomical aspects and color theory.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: MSP207 and admission to the Mortuary Science program.		Occ	LAB 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MSP208	Legal, Regulatory, and Ethical Issues in Mortuary Science		Mortuary law, regulation by the Federal Trade Commission, and ethical issues in mortuary science. Individual state laws as they pertain to the regulation of funeral establishments and funeral service personnel.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0
MSP209	Pathology for Mortuary Science		Pathologic conditions which require special treatment and terminology associated with the causes of death.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0
MSP210	Psychology, Counseling, and Mortuary Science		Psychology and grief counseling principles in mortuary science.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 2.0 2.0 2.0
MSP211	Compendium for Mortuary Science		Analysis of daily tasks performed by funeral service personnel. Capstone experience based on all previous course work.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 2.0 2.0 2.0
MSP282AA	Service-Learning Experience in Mortuary Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MSP282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0
MSP282AB	Service-Learning Experience in Mortuary Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MSP282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MSP282AC	Service-Learning Experience in Mortuary Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MSP282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 3.0 3.0 0.0
MSP296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
MSP296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the students. COMMON COMPETENCY COURSE	grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
MSP296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				major or career interest or with permission of Instructor.			
MSP296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
MST140	Microsoft Networking Essentials		Emphasis on local area network with overview of wide area networks. Includes terminology, hardware and software components, connectivity, network architecture, packet structure, topologies, communication standards and protocols, and security issues. Preparation for Microsoft certification examination.	Prerequisites: None. (BPC110 or CIS105 and CIS121AB) suggested but not required.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MST141	Enterprise Desktop Support Technician		Troubleshooting and repairing problems with Microsoft Windows desktop operating systems. Basic knowledge of system architecture and security as needed to provide skills required to support users.	A grade of C or better required in all Prerequisites. Prerequisites: (CIS102 or any CIS102++ course) and CIS105 or permission of Instructor. Prerequisites or Corequisites: Any MST150++ course or permission of Instructor.	MST141 is preparation for the Microsoft Certified IT Professional: Enterprise Desktop Support Technician 7 (MCITP) certification examination , 70-685.	Occ	L+L 3.0 4.0 4.0
MST150EI	Configuring Windows 8		In-depth exploration of how to effectively install and configure Windows 8. Includes features of Windows 8, virtualization with Hyper-V, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. Designed to prepare students for the Microsoft Windows 8 certification examination (70-687).	Prerequisites: None. MST140 or CNT140++ recommended.		Occ	L+L 3.0 4.0 4.0
MST150SV	Microsoft Windows 7 Configuration		Knowledge and skills necessary to perform installation and day-to-day administration and support of the Microsoft Windows 7 operating system. Preparation for the Microsoft certification examination.	Prerequisites: None. CIS190 or MST140 suggested but not required.		Occ	L+L 3.0 4.0 4.0
MST150WT	Installing and Configuring Microsoft Windows 10		In-depth exploration of how to effectively install and configure Windows 10. Includes features of Windows 10, virtualization improvements, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. Designed to	Prerequisites: None. CIS190 or CNT140AB suggested but not required.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			prepare students for the Microsoft Windows 10 certification examination.				
MST152	Microsoft Windows Server		Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Server. Preparation for Microsoft certification examination.	Prerequisites: A grade of C or better in any MST150 course or Corequisites: any MST150 course or permission of Instructor.		Occ	L+L 4.0 5.0 5.0
MST155DA	Windows Server Network Infrastructure Configuration		Information and skills necessary to design a Microsoft Windows networking services infrastructure design. Includes network foundation design, Internet and private networks connectivity, in addition to functionality security and performance features of networking services.	Prerequisites: A grade of C or better in MST150, or any MST150++ course, or permission of Instructor.		Occ	L+L 4.0 5.0 5.0
MST155DB	Configuring Advanced Windows Server Services		In-depth exploration of how to effectively install and configure Windows Server. Designed to prepare students for the Microsoft Configuring Advanced Windows Server Services examination (70-412).	Prerequisites: A grade of C or better in MST158DA or MST158DB or permission of Instructor.	Recommen d that prerequisite course completed was for the same version of Windows server as will be taught in MST155DB	Occ	L+L 4.0 5.0 5.0
MST155DC	Installation, Storage, and Compute with Windows Server		This course focuses primarily on the installation, storage, and compute features and their functionality that is available within Windows Server. As Information Technology pushes towards more cloud based solutions and makes our classic approach obsolete, this course will help students prepare for a career within an Information Technology enterprise	Prerequisites: A grade of C or better in MST150++ or permission of Instructor.		Occ	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and help distinguish themselves in today's competitive job market. This course covers various topics like Windows Server installation, Hyper-V deployments and storage options in relation to this new cloud based reality.				
MST157DA	Active Directory Windows Server Configuration		Information and skills necessary to install, configure and administer Active Directory service. Covers tasks required to create users and groups, and to implement Group Policies which provide centralized management of users and computers.	Prerequisites: Any MST course or permission of Instructor.	MST157DA is a preparation for the Microsoft 70-640 professional certification test.	Occ	L+L 4.0 5.0 5.0
MST157DB	Administering Windows Server		In-depth exploration of how to effectively manage Windows Server. Designed to prepare students for the Administering Microsoft Windows Server examination (70-411).	Prerequisites: A grade of C or better in MST158DA or MST158DB or permission of Instructor.	Recommen d that prerequisite course completed was for the same version of Windows server as will be taught in MST157DB	Occ	L+L 4.0 5.0 5.0
MST157DC	Networking with Windows Server		This course focuses on the networking features and their functionality available within Windows Server. It builds upon the skills from the Installation, Storage, and Compute with Windows Server course (MST155DC) and will develop skills related to Software-Defined Networking (SDN) solutions within Hyper-V, remote connectivity with VPN and Direct Access, and providing Internet connectivity with Domain Name System (DNS), Dynamic Host Configuration Protocol	Prerequisites: A grade of C or better in MST155DC or permission of Instructor.		Occ	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			(DHCP), and Internet Protocol Address Management (IPAM). This course helps prepare for the 70-741 industry certification test.				
MST158DA	Windows Server Administration		Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Server.	Prerequisites: A grade of C or better in (MST155 or any MST155++ course) and (MST157 or any MST157++ course), or permission of Instructor.		Occ	L+L 4.0 5.0 5.0
MST158DB	Installing and Configuring Windows Server		In-depth exploration of how to effectively install and configure Windows Server. Includes roles and features of Server, virtualization with Hyper-V, core network services, Active Directory, and Group Policy. Designed to prepare students for the corresponding Microsoft Windows Server Installation and Configuration examination (70-410).	Prerequisites: A grade of C or better in (MST140 or CNT140 or CNT140AA) and (MST150 or MST150SV or MST150VI or MST150XP) or permission of Instructor.		Occ	L+L 4.0 5.0 5.0
MST158DC	Identity Management with Windows Server 2016		Prepares students to manage Windows Server 2016 tasks. Configure and manage multiple services, such as Identity Management and Active Directory. Learn how to install and configure domain controllers and create and manage users, groups, and computers within Organizational Units. Prepares students for the Microsoft exam, Identity with Windows Server 2016-70-742.	Prerequisites: A grade of C or better in MST157DC.		Occ	L+L 4.0 5.0 5.0
MST160	Azure Administrator		Teaches IT professionals how to manage Azure subscriptions, secure	Prerequisites: A grade of C or better in MST150WT,		Occ	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			identities, administer the infrastructure, configure virtual networking, connect Azure and on-premises sites, manage network traffic, implement storage solutions, create and scale virtual machines, implement web apps and containers, backup and share data, and monitor solutions.	or permission of Instructor.			
MST260	Microsoft Azure Cloud Development and Operations		Designed to provide technical information and skills required to develop and operate Microsoft Azure cloud infrastructure environments. Describes the design processes and implementation strategies for application and infrastructure that enable continuous integration, testing, and delivery, as well as infrastructure as code and process monitoring. Emphasizes processes, and technologies required to increase software delivery velocity and improve service reliability. Helps to prepare students for the Microsoft AZ-400, Azure DevOps Engineer or DevOps Institute, DevOps Foundation exams.	Prerequisites: A grade of C or better in (CIS156 and MST160) or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
MST280CA	Current Topics in Microsoft Computing		Critical inquiry of current topics in Microsoft Technology computing. Application of Microsoft Technology trends to solve problems and/or investigate issues.	Prerequisites: Permission of Instructor.		Occ	L+L 3.0 4.0 4.0
MTC098	Music Theory Boot Camp		Intensive review of music theory fundamentals to develop and/or refresh skills necessary for advanced study.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
MTC101	Introduction to Music Theory		Designed to develop written and aural skills	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			necessary for advanced study of music theory and skills. Recommended for music majors				
MTC103	Introduction to Aural Perception		An introduction to the aural skills necessary to hear relationships of intervals, rhythms, melody, and harmony in music.	Prerequisites: None.	MTC103 may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 2.0 2.0
MTC105	Music Theory I		The chronological study of music theory including: harmony, melody, texture, structure and timbre through analysis, original compositions and basic exercises to demonstrate musical concepts.	Prerequisites: A grade of C or better in MTC101 or permission of Instructor. Corequisites: MTC106.		Acad	LEC 3.0 3.0 3.0
MTC106	Aural Perception I		The development of listening and performing skills through dictation, sight singing and keyboard harmony	Prerequisites: None. Corequisites: MTC105.		Acad	L+L 1.0 2.0 2.0
MTC110	Music Notation for Songwriting		Basic musical notational system with emphasis on note reading, staff placement, meter, rhythmic patterns, basic harmonic patterns, chords and chord symbols, lead sheet forms, scales and keys	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0
MTC122	Fretboard Harmony		An in-depth study of functional and theoretical practice as applied to the fretboard of the guitar through understanding of chord symbols, intervals and rhythm	Prerequisites: A grade of C or better in MTC101.		Acad	LEC 3.0 3.0 3.0
MTC130	Jazz Theory		Develop written and aural theory skills necessary in the jazz idiom.	Prerequisites: A grade of C or better in (MTC101 and MTC103), or permission of Instructor.	MTC130 is recommended for students taking jazz improvisation, jazz composition and jazz combo.	Acad	LEC 2.0 2.0 2.0
MTC155	Music Theory II		A continuation of Music Theory I with emphasis	Prerequisites: A grade of C or better in		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			on harmony and part-writing procedures	MTC105. Corequisites: MTC156.			
MTC156	Aural Perception II		A continuation of Aural Perception I, including harmonic practices.	Prerequisites: A grade of C or better in MTC106. Corequisites: MTC155.		Acad	L+L 1.0 2.0 2.0
MTC180	Computer Literacy for Musicians		Instruction in basic computer literacy, including generic applications and music-specific programs with hands-on experience. Ability to read music notation required.	Prerequisites: A grade of C or better in MTC101, or MTC105, or Corequisites: MTC105, or permission of Instructor.	General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	L+L 3.0 4.0 4.0
MTC190	Computer-Aided Music Notation		Introduction to computer-aided music notation, culminating in editing and producing publication-quality music scores. Ability to read music notation required	Prerequisites: Permission of Instructor.		Acad	L+L 3.0 4.0 4.0
MTC203	Jazz Composition		Composition and analysis of standard song forms as well as other standard compositional practices and forms idiomatic to jazz	Prerequisites: A grade of C or better in MTC155 or MUP165 or permission of Instructor.		Acad	L+L 3.0 3.0 0.0
MTC205	Music Theory III		The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure	Prerequisites: A grade of C or better in MTC155. Corequisites: MTC206.	Course Attribute(s): Arizona Shared Unique Number SUN#: MUS 2222	Acad	LEC 3.0 3.0 3.0
MTC206	Aural Perception III		A development of listening and performing skills, including an introduction of chromatic harmonic techniques and concepts of style.	Prerequisites: A grade of C or better in MTC156. Corequisites: MTC205.		Acad	L+L 1.0 2.0 2.0
MTC240	Composition		Introduction to the basics of music composition, stressing techniques and procedures for developing original ideas.	Prerequisites: A grade of C or better in (MTC105 and MTC106 or equivalent) and permission of Instructor.	MTC240 may be repeated for a total of twelve (12) credit hours.	Acad	L+L 3.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MTC255	Music Theory IV		A continuation of Music Theory III, including 20th century theories and techniques	Prerequisites: A grade of C or better in MTC205. Corequisites: MTC256.	Course Attribute(s): Arizona Shared Unique Number SUN#: MUS 2223	Acad	LEC 3.0 3.0 3.0
MTC256	Aural Perception IV		A continuation of Aural Perception III, including extended chords.	Prerequisites: A grade of C or better in MTC206. Corequisites: MTC255.		Acad	L+L 1.0 2.0 2.0
MTC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
MTC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MTC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
MUC109	Music Business: Content Creation and Copyright		Designed to provide an overview of content creation and copyright considerations within the Music Industry. Topics include songwriting and music creation, copyright, publishing and licensing, studio production, media applications of music, business ownership and operations, and emerging technologies.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MUC110	Music Business: Marketing and Monetization		Designed to provide an overview of the marketing and monetization of music. Topics include music label operations; contracts; marketing, promotion, and merchandising; agents, managers, and attorneys; concert promotion and touring; and unions and guilds.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
MUC111	Digital Audio Workstation I (DAW I)		Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management.	Prerequisites: A grade of C or better in MUC195 or MUC195AA or FMP105 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUC112	Digital Audio Workstation II (DAW II)		Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management.	Prerequisites: A grade of C or better in MUC111, and (MUC195 or MUC195AA).		Occ	L+L 3.0 5.0 5.0
MUC114	Song Publishing and Marketing		Publishing and marketing of songs including services that publishers provide and what to consider when choosing one, a summary of various aspects and types of contracts, working as a staff writer, publisher marketing, self marketing, and additional markets.	Prerequisites: None.		Occ	LEC 1.0 1.0 0.0
MUC115	Song Copyrighting and Demos		Terms involved with copyright laws. Clarification of when copyright begins, ownership of copyright and registration, limitations of copyright, and when works become public domain. Phases of making a demonstration tape or CD. Promotion and presentation of a demo.	Prerequisites: None.		Occ	LEC 1.0 1.0 0.0
MUC120	Introduction to Sound Design for Film and Video	FMT120	Basic principles of recording and mixing sound for film and video. Includes voice-over, automatic dialog replacement (ADR), foley, ambience, special effects and music. Emphasis on analog and digital recording techniques in the field as well as in a controlled environment.	Prerequisites: A grade of C or better in (FMT100 and FMT136) or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
MUC122	Sound Design I		Introduction to Sound Design and Audio Post-Production for Multimedia. Includes creating and editing Sound Effects, ADR, Foley, Music, and Ambience, such as Film, TV, Video Gaming, Theatre, and Dance.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Emphasis on computer assisted production using Digital Audio Workstations and sound design techniques using industry-standard equipment.				
MUC135	Introduction to Disc Jockey Techniques		Development of beginning level live-performance disc jockey techniques. Emphasis on understanding the construction of industry-formatted dance songs, cueing, segueing/mixing methods, the relationship of beats per minute to segueing, and programming songs to entertain a live audience. Covers the history of the live performance DJ and strategies for soliciting employment in the field.	Prerequisites: None.	MUC135 may be repeated for a total of six (6) credits.	Occ	L+L 3.0 3.0 3.0
MUC136	Turntablism: The Art of the Scratch DJ		Covers the skills required in vinyl manipulation; examines the development of turntable techniques and the contributions made by individual turntable artists.	Prerequisites: None.	MUC136 may be repeated for a total of six (6) credits.	Occ	L+L 3.0 4.0 4.0
MUC137	Digital DJ Performance Techniques		Covers the skills required for live performance employing digital media with an emphasis on programs such as Serato Scratch Live and Ableton Live.	Prerequisites: None.	MUC137 may be repeated for a total of six (6) credits.	Occ	L+L 3.0 4.0 4.0
MUC138	Disc Jockey Laboratory		Operation, scope, roles and responsibilities in the commercial music production process.	Prerequisites: None.	MUC138 may be repeated for a total of six (6) credit hours.	Occ	LAB 1.0 1.0 0.0
MUC139	Introduction to Emcee-Rapping Techniques		Development of beginning level live-performance and recording emcee-rap techniques. Emphasis on understanding rhyme, structure, breath control, stage presence, and performance. Covers the history of the DJ/emcee and origins of the rapper,	Prerequisites: None.	MUC139 may be repeated for a total of six (6) credits.	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			song structure, enunciation, vocal delivery, breath control, melody, and pacing while staying on beat.				
MUC140	Songwriting		An introduction to the art and craft of songwriting through the study and analysis of diverse songwriters and musical styles, and creation of original songs.	Prerequisites: A grade of C or better in MTC101, or MTC105, or permission of Instructor.	MUC140 may be repeated for a total of six (6) credits.	Occ	LEC 3.0 3.0 3.0
MUC145	Recording Studio Business Operations		Operation, scope, roles and responsibilities in the commercial music production process. Focuses on the business aspects and daily management of the professional recording studio. Includes strategies for project management, client service, marketing, equipment acquisition, staffing and employment.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
MUC180	Computer Literacy for the Music Business		Basic computer literacy, including business applications used in the Music Industry, with hands-on experience.	Prerequisites: A grade of C or better in MUC109 or permission of Instructor or Department or Division Chair.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Occ	L+L 3.0 3.0 0.0
MUC181	Popular Music Orchestration and Arranging		Basic orchestration and arranging techniques as used in popular music genres including jazz, pop, and rock music for vocal and instrumental music performance ensembles. Idiomatic uses of harmony, melodic rhythm, voicing, tonal color and notation.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (MTC155 or higher level of MTC music theory) and MTC180.		Occ	LEC 3.0 3.0 3.0
MUC191	Electronic Music I		An introduction to creating music with computers, utilizing the Musical Instrument Digital Interface (MIDI) protocol, synthesizers,	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			digital audio software/hardware, and MIDI controllers.				
MUC192	Electronic Music II		Continued study of creating music with computers, utilizing the Musical Instrument Digital Interface (MIDI) configurations, audio editing, and music software/hardware at the intermediate level. Emphasis on more complex configurations and their applications in compositions.	Prerequisites: A grade of C or better in MUC191.		Occ	L+L 3.0 4.0 4.0
MUC193	Computer-Based Sound Synthesis		Principles of sound synthesis using computer-based methods. Synthesis methods include subtractive, additive, frequency modulation, sample and synthesis, and hybrid. Emphasis on synthesis techniques for use in electronic music.	Prerequisites: A grade of C or better in MTC191 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
MUC194	Audio Mixing Techniques		Approaches in final mixing for different musical genres. Develop critical listening skills, and applying these techniques to students' projects. Professional-type facilities and equipment available for student use.	Prerequisites: A grade of C or better in MUC111 and MUC196, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
MUC195	Studio Music Recording I		Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
MUC195AA	Studio Music Recording I		Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			process and musical production decisions.				
MUC196	Studio Music Recording II		Emphasis on signal-processing equipment, mixing consoles, and advanced musical recording session procedures, production, and engineering. Includes mix-down and resultant master tape of a musical recording session.	Prerequisites: A grade of C or better in MUC195 or MUC195AA.		Occ	L+L 3.0 5.0 5.0
MUC196AA	Studio Music Recording II		Emphasis on signal-processing equipment, mixing consoles, and advanced musical recording session procedures, production, and engineering. Includes mix-down and resultant master tape of a musical recording session.	Prerequisites: A grade of C or better in MUC195 or MUC195AA.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0
MUC197	Live Sound Reinforcement I		Basic principles of live sound engineering. Emphasis on signal flow, acoustic, sound reinforcement set-ups and installation, signal processing, microphone selections and placement. Includes setting up sound systems and mixing live music.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
MUC198	Live Sound Reinforcement II		Emphasis on musical production decisions. Front-of-house and monitor console placement, loudspeaker arrangements, power considerations, program material and sound pressure levels. Includes setting up of sound system and mixing live performances with various styles of music. In addition to mixing at alternate locations.	Prerequisites: A grade of C or better in MUC197.		Occ	L+L 3.0 4.0 4.0
MUC209	Music Industry Entrepreneurship		Operation, scope, and career opportunities in the music business. Focuses on music in the areas of	Prerequisites: A grade of C or better in MUC109 and MUC110 or		Occ	LEC 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			entrepreneurship, visionary development and the collaboration process.	permission of Instructor.			
MUC210	Advanced Industry Topics: Concert Promotion and Touring		Operation, scope, and career opportunities in the music business. Focuses on advanced aspects of concert promotion, touring and festival production. Areas of focus include marketing, planning, operations, talent buying, and budgeting for profitable and successful music-performance stage shows.	Prerequisites: A grade of C or better in MUC109 or permission of Instructor or Department or Division Chair.		Occ	LEC 3.0 3.0 0.0
MUC211	Advanced Industry Topics: Artist Management and Development		Operation, scope, and career opportunities in the music business. Focus on advanced aspects of artist management and development. Include roles and responsibilities of an Artist Manager, the nature and structure of the relationship between an Artist and Artist Manager, and the development of business, and career management techniques for Artist Managers.	Prerequisites: A grade of C or better in MUC109 or permission of Instructor or Department or Division Chair.		Occ	LEC 3.0 3.0 0.0
MUC215	Music Industry Seminar: Innovation in Music Technology		Seminar in Music Industry technology with an emphasis on current product and service innovations. Emphasis on marketing and promotional uses of new technology.	Prerequisites: None.	MUC215 may be repeated for credit.	Occ	LEC 1.0 1.0 0.0
MUC216	Music Workshop/Seminar		Workshop seminar in commercial music disciplines.	Prerequisites: None.	MUC216 may be repeated for credit.	Occ	LEC 1.0 1.0 0.0
MUC220	Advanced Sound Design for Film and Video	FMT220	Explores techniques and advanced applications used in designing sound using original student footage on a non-linear editing system.	Prerequisites: A grade of C or better in FMT/MUC120 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUC222	Sound Design II		Intermediate level Sound Design and Audio Post-Production for Multimedia.	A grade of C or better required in all Prerequisites. Prerequisites: MUC122. Prerequisites or Corequisites: MUC191 or MUC111 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
MUC237	Electronic Dance Music Production		Process and skills required for music production employing digital media, with an emphasis on producing music on digital audio workstations.	Prerequisites: A grade of C or better in MUC191 or permission of Instructor.	MUC237 may be repeated for a total of six (6) credits.	Occ	L+L 3.0 4.0 4.0
MUC240	Creative Music Production		Operation, scope, roles and responsibilities in the commercial music production process. Focuses on creative aspects of commercial music production, including song selection, realization of artistic vision, studio selection, musician and vocal staff selection, coaching for optimal performance, analyzing song structure and sound quality and trouble-shooting problems in the overall artistic impression of the finished music product. Lab work includes creation and execution of a finished professional-quality music production.	Prerequisites: A grade of C or better in [(MTC101 and MTC103) or (MTC105 and MTC106)], and (MUC112, MUC192, and MUC295), or permission of Instructor.		Occ	L+L 4.0 5.0 0.0
MUC241	Business Principles of Music Production		Operation, scope, roles and responsibilities in the commercial music production process. Focuses on business aspects of commercial music production, including project management, budgeting, production personnel, deal structures, revenue sources, copyright,	Prerequisites: A grade of C or better in (MUC109 and MUC110) or permission of Instructor.		Occ	LEC 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			publishing percentages and career strategies.				
MUC242	Music Genres and Styles		Operation and development of creative skills in the commercial music production process. Geared towards music producers and emphasizing analysis and comprehension of commercial music styles and genres, including: pop, country, rock, soul, rhythm and blues, funk, and hip-hop. Study of the thematic organization of popular musical styles.	Prerequisites: None.		Occ	LEC 2.0 2.0 0.0
MUC261	Modern Arranging I		Basic arranging techniques as used in jazz and rock idioms for combo and special ensembles. Idiomatic uses of harmony, melodic rhythm, voicing, tonal color and notation.	Prerequisites: A grade of C or better in MUP164 and MUP165 or permission of Instructor.	MUC261 may be repeated for a total of six (6) credit hours.	Occ	LEC 3.0 3.0 3.0
MUC262	Modern Arranging II		Arranging for larger ensembles, including strings, jazz ensemble, woodwinds and synthesizers. Detailed study of harmony, form and orchestration.	Prerequisites: A grade of C or better in MUC261 or permission of Instructor.	MUC262 may be repeated for a total of six (6) credit hours.	Occ	LEC 3.0 3.0 3.0
MUC274	Music Industry Study Tour		A tour of the music industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of professional opportunities and careers.	Prerequisites: None.	Additional expenses will apply students responsible for travel expenses. MUC274 may be repeated for a total of ten (10) credit hours.	Occ	LAB 2.0 2.0 0.0
MUC280	Recording Studio Maintenance		Introduction to the techniques, electronics, and tools used to perform basic recording studio, live sound, and electronic musical instrument equipment maintenance	Prerequisites: A grade of C or better in MUC195AA or MUC111 or permission of instructor.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUC281	Electronic Music III		Continued study of the production of music using electronic processes. Emphasis on more complex configurations and their applications in live performance or studio use.	Prerequisites: A grade of C or better in MUC192.		Occ	L+L 3.0 4.0 4.0
MUC289	Live Sound Reinforcement III		Focus on audio engineering and media production for performances and events. The course will cover advanced audio concepts and techniques, basic lighting, rigging, and media. Students will apply their knowledge assisting as part of productions, events, advanced projects or other activities related to the course material.	Prerequisites: A grade of C or better in MUC198.		Occ	L+L 3.0 6.0 6.0
MUC290AA	Music Business Internship		Music Business Internship work experience. Perform a variety of activities, to fulfill the routines and responsibilities of the department or business where the internship is served. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MUC290AA may be repeated for a total of twelve (12) credit hours.	Occ	L+L 1.0 1.0 0.0
MUC291AA	Disc Jockey Internship		Disc Jockey (DJ) internship work experience, which may include emcee-rapping and/or electronic dance music production, under the supervision of an experienced industry professional. Perform a variety of activities to fulfill the routines and responsibilities of the department or business where the internship is served.	Prerequisites: Permission of Department or Division.	MUC291AA requires a minimum of eighty (80) hours of designated work per credit. MUC291AA may be repeated for a total of twelve (12) credit hours.	Occ	L+L 1.0 1.0 0.0
MUC292	Sound Design III		Advanced Sound Design Production for Multimedia: Designed to provide an atmosphere of team research and	Prerequisites: A grade of C or better in MUC222, or		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use.	permission of Instructor.			
MUC293	Self Promotion for Music		Designed to provide the skills and knowledge required for effective self-promotion. Focus on career goal development, market analysis, communication and networking skills, and the development of a self-promotional campaign.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
MUC294	Portfolio for Music		Includes developing a portfolio that demonstrates music related skills and marketing of songs, recordings, and musical performances.	Prerequisites: A grade of C or better in MUC293.		Occ	LEC 1.0 1.0 0.0
MUC295	Studio Music Recording III		Producing and engineering a recording project. Covers how recording studios work and how recording projects are organized from pre-production through delivery of the final mix.	Prerequisites: A grade of C or better in MUC196 and (MUC111 or permission of Instructor).		Occ	L+L 3.0 6.0 6.0
MUC296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
MUC296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
MUC296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE	be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
MUC296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				interest or with permission of Instructor.			
MUC297AA	Audio Production Internship		Music Internship work experience in a business or industry. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MUC297AA may be repeated for a total of twelve (12) credit hours.	Occ	L+L 1.0 1.0 0.0
MUC297AB	Audio Production Internship		Music Internship work experience in a business or industry eighty (80) hours of designated work per credit.	Prerequisites: A grade of C or better in MUC110.	MUC297AB may be repeated for a total of twelve (12) credit hours.	Occ	L+L 2.0 2.0 0.0
MUC297AC	Audio Production Internship		Music Internship work experience in a business or industry eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MUC297AC may be repeated for a total of twelve (12) credit hours.	Occ	L+L 3.0 3.0 0.0
MUC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
MUC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
MUC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
MUE107	Woodwinds Methods I		Practical class with emphasis on techniques of playing and teaching woodwind instruments including embouchure, breath control, tone, mouthpiece selection, and literature.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0
MUE108	Percussion Methods I		Practical class with emphasis on techniques of playing and teaching percussion instruments including hand position, rudiments, stick control, and elements of reading rhythms.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0
MUE109	Brass Methods I		Practical class with emphasis on techniques of playing and teaching brass instruments including embouchure, breath control, tone, and literature.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0
MUE110	Strings Methods I		Practical class with emphasis on techniques of playing and teaching string instruments including tone control and literature.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUE111	Guitar Methods		Practical class with emphasis on both classical and popular techniques, methods, materials, solo/ensemble literature and repertoire used in all levels of guitar. Instructional approaches to the guitar as both a harmonizing instrument and in an ensemble setting.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0
MUE207	Woodwinds Methods II		Continuation of Woodwinds Methods I with additional emphasis on skills including ensemble performance, transposition, increasing range and literature.	Prerequisites: A grade of C or better in MUE107 or permission of Instructor.		Acad	L+L 1.0 3.0 3.0
MUE208	Percussion Methods II		Continuation of Percussion Methods I with additional emphasis on ensemble techniques and representative literature.	Prerequisites: A grade of C or better in MUE108 or permission of Instructor.		Acad	L+L 1.0 3.0 3.0
MUE209	Brass Methods II		Continuation of Brass Methods I with additional focus on skills including ensemble performance, transposition, increasing range and solo literature.	Prerequisites: A grade of C or better in MUE109 or permission of Instructor.		Acad	L+L 1.0 3.0 3.0
MUE210	Strings Methods II		Continuation of String Methods I with additional focus on skills including fingering and bowing techniques, and solo/ensemble literature.	Prerequisites: A grade of C or better in MUE110 or permission of Instructor.		Acad	L+L 1.0 3.0 3.0
MUE240	Introduction to Choral Methods		Overview of techniques, methods, materials, style characteristics, and repertoire used in directing choral music at the secondary level including simulated teaching, conducting, and the demonstration of vocal and choral performance practices.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0
MUE250	Vocal Pedagogy/Voice Methods		Study of the anatomy, physiology, and acoustics of singing as applied to healthy vocal function and the teaching of singing. Topics include: overview of techniques, materials,	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and literature used in teaching singing.				
MUE296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
MUE296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
MUE296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
MUE296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
MUE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
MUE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
MUE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
MUP100	Introduction to Digital Musicianship		A music performance class that provides foundational skills in the use of digital concepts, tools, software applications, and technology to improve performance ability and music making concepts that align with current trends in the music industry.	Prerequisites: None.	MUP100 may be repeated for credit.	Occ	LEC 2.0 2.0 2.0
MUP101AA	Private Instruction: Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental	Prerequisites: None.	MUP101AA may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP101AD	Private Instruction: Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101AD may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101AG	Private Instruction: Harpsichord		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101AG may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP101AJ	Private Instruction: Organ		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101AJ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101AM	Private Instruction: Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101AM may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101AP	Private Instruction: Trumpet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction	Prerequisites: None.	MUP101AP may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP101AS	Private Instruction: French Horn		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101AS may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101AV	Private Instruction: Trombone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101AV may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101AY	Private Instruction: Euphonium		Private Instruction emphasizing	Prerequisites: None.	MUP101AY may be	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.		repeated for credit.		
MUP101BB	Private Instruction: Tuba		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101BB may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101BE	Private Instruction: Flute		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ,	Prerequisites: None.	MUP101BE may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP101BH	Private Instruction: Oboe		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101BH may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101BK	Private Instruction: Clarinet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101BK may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101BN	Private Instruction: Bassoon		Private Instruction emphasizing developmental improvement of	Prerequisites: None.	MUP101BN may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP101BQ	Private Instruction: Saxophone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101BQ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101BT	Private Instruction: Violin		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone	Prerequisites: None.	MUP101BT may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP101B W	Private Instruction: Viola		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101B W may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101BZ	Private Instruction: Violoncello		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101BZ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101CC	Private Instruction: Contrabass		Private Instruction emphasizing developmental improvement of musicianship and technique from an	Prerequisites: None.	MUP101CC may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP101CF	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101CF may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101CI	Private Instruction: Percussion		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe,	Prerequisites: None.	MUP101CI may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP101CJ	Private Instruction: Harp		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101CJ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101CK	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101CK may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101CL	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an	Prerequisites: None.	MUP101CL may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP101C M	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101C M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101CN	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone	Prerequisites: None.	MUP101CN may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP101CO	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101CO may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101CP	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101CP may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP101CQ	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental	Prerequisites: None.	MUP101CQ may be	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.		repeated for credit.		
MUP102AA	Private Instruction: Voice		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102AA may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102AD	Private Instruction: Piano		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass,	Prerequisites: None.	MUP102AD may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			bass guitar, percussion, and harp.				
MUP102AG	Private Instruction: Harpsichord		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102AG may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102AJ	Private Instruction: Organ		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102AJ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102AM	Private Instruction: Guitar		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola,	Prerequisites: None.	MUP102AM may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			violoncello, contrabass, bass guitar, percussion, and harp.				
MUP102AP	Private Instruction: Trumpet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102AP may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102AS	Private Instruction: French Horn		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102AS may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102AV	Private Instruction: Trombone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon,	Prerequisites: None.	MUP102AV may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP102AY	Private Instruction: Euphonium		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102AY may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102BB	Private Instruction: Tuba		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102BB may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102BE	Private Instruction: Flute		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe,	Prerequisites: None.	MUP102BE may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP102BH	Private Instruction: Oboe		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102BH may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102BK	Private Instruction: Clarinet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102BK may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102BN	Private Instruction: Bassoon		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone	Prerequisites: None.	MUP102BN may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP102BQ	Private Instruction: Saxophone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102BQ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102BT	Private Instruction: Violin		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102BT may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102B W	Private Instruction: Viola		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French	Prerequisites: None.	MUP102B W may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP102BZ	Private Instruction: Violoncello		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102BZ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102CC	Private Instruction: Contrabass		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102CC may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102CF	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental	Prerequisites: None.	MUP102CF may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP102CI	Private Instruction: Percussion		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102CI may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102CJ	Private Instruction: Harp		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102CJ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102CK	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an	Prerequisites: None.	MUP102CK may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP102CL	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP102CL may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102C M	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone	Prerequisites: None.	MUP102C M may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP102CN	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP102CN may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102CO	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP102CO may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP102CP	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental	Prerequisites: None.	MUP102CP may be	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.		repeated for credit.		
MUP102CQ	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP102CQ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP110	Concert Music		Attendance at concerts, recitals and music lectures on and off campus. Required each semester for all music majors	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
MUP123AA	Studio Class/Piano		Performance and laboratory class for students enrolled in private piano instruction. Emphasis on demonstration and	Prerequisites: None. Corequisites: Private Piano Instruction.	MUP123AA may be repeated for credit.	Occ	L+L 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			discussion of specific piano problems.				
MUP123AB	Studio Class/Voice		Performance and laboratory class for students enrolled in private voice instruction. Emphasis on demonstration and discussion of specific vocal problems.	Prerequisites: None. Corequisites: Private Voice Instruction.	MUP123AB may be repeated for credit.	Occ	L+L 0.5 0.5 0.5
MUP123AC	Studio Class/Guitar		Performance and laboratory class for students enrolled in private guitar instruction. Emphasis on demonstration and discussion of specific guitar problems	Prerequisites: None. Corequisites: Private Guitar Instruction.	MUP123AC may be repeated for credit.	Occ	L+L 0.5 0.5 0.5
MUP123AD	Studio Class: Instrumental		Performance and laboratory class for students enrolled in private instrumental instruction. Emphasis on demonstration and discussion of specific instrumental problems.	Prerequisites: None. Corequisites: Private Instrumental Instruction.	MUP123AD may be repeated for credit.	Occ	L+L 0.5 0.5 0.5
MUP123AE	Studio Class: Jazz Styles		Performance and laboratory class for students enrolled in private jazz styles instruction. Emphasis on demonstration and discussion of specific jazz styles problems.	Prerequisites: None. Corequisites: Private Jazz Styles Instruction.	MUP123AE may be repeated for credit.	Occ	L+L 0.5 0.5 0.5
MUP127	Class Guitar I		Emphasis on note-reading and folk-style harmonic accompaniment. Includes finger-style playing. Stresses development of efficient practice techniques and proper sitting and hand positions.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0
MUP128	Class Guitar II		Note-reading range including second position and parts of higher positions. Classical, popular, Latin, and other styles of music. Theory including scales, keys, and chord construction. Technical exercises of both hands.	Prerequisites: A grade of C or better in MUP127 or permission of Instructor.		Occ	L+L 1.0 3.0 3.0
MUP130	Introduction to Class Piano		Basic introduction to piano techniques and	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			fundamentals of music including hand position, sight-reading of both melodic and harmonic materials, and the introduction of scale patterns. Designed for those with little or no piano experience.				
MUP131	Class Piano I		Development of beginning piano techniques and the fundamentals of music including basic hand position, music-reading skills of melodic and harmonic material, major scales, transposition, and harmonizations including the I, IV, V7 chords.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0
MUP132	Class Piano II		Continuation of Piano I with emphasis on elementary piano techniques including major and minor scales, transposition, improvisation, and sight reading.	Prerequisites: A grade of C or better in MUP131 or permission of Instructor.		Occ	L+L 1.0 3.0 3.0
MUP133	Class Voice I		Introduction to the fundamentals of vocal production. Emphasis on breathing techniques, tone production and performances in class of solo vocal literature.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0
MUP134	Class Voice II		Continuation of Class Voice I including the elements of stage presence and diction.	Prerequisites: A grade of C or better in MUP133 or permission of Instructor.		Occ	L+L 1.0 3.0 3.0
MUP135	Class Native American Flute I		Practical class with emphasis on playing, including embouchure, breath control, finger control, reading from printed score and improvising songs.	Prerequisites: None.	MUP135 may be repeated for up to six (6) credits.	Occ	L+L 2.0 3.0 3.0
MUP140	Elementary Piano Pedagogy		An overview of techniques, methods, materials, stylistic characteristics, and repertoire used in teaching piano to students at the early and	Prerequisites: Permission of Instructor or department or division.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			late elementary levels including creating a studio policy, simulated teaching, and observing private instruction and group piano classes.				
MUP141	Intermediate Piano Pedagogy		Overview of techniques, methods, materials, stylistic characteristics, and repertoire used in teaching piano students at the intermediate and early advanced levels including simulated teaching, performance and competition preparation, and observing private instruction and group piano classes.	Prerequisites: Permission of Instructor or department or division.		Occ	LEC 2.0 2.0 2.0
MUP149	Gospel Chorus		A mixed chorus with emphasis on college/community participation and preparation of a variety of Gospel Music for public performance. Auditions may be required.	Prerequisites: None.	MUP149 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP150	Community Chorus		A mixed chorus with emphasis on college/community participation and preparation of a variety of choral literature for public performance. Auditions may be required.	Prerequisites: None.	MUP150 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP151AA	Private Instruction: Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon,	Prerequisites: A grade of C or better in MUP101AA.	MUP151AA may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP151AD	Private Instruction: Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AD.	MUP151AD may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151AG	Private Instruction: Harpsichord		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AG.	MUP151AG may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151AJ	Private Instruction: Organ		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence	Prerequisites: A grade of C or better in MUP101AJ.	MUP151AJ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP151AM	Private Instruction: Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AM.	MUP151AM may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151AP	Private Instruction: Trumpet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass,	Prerequisites: A grade of C or better in MUP101AP.	MUP151AP may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			bass guitar, percussion, and harp.				
MUP151AS	Private Instruction: French Horn		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AS.	MUP151AS may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151AV	Private Instruction: Trombone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AV.	MUP151AV may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151AY	Private Instruction: Euphonium		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting	Prerequisites: A grade of C or better in MUP101AY.	MUP151AY may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, and percussion.				
MUP151BB	Private Instruction: Tuba		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BB.	MUP151BB may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151BE	Private Instruction: Flute		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BE.	MUP151BE may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP151BH	Private Instruction: Oboe		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BH.	MUP151BH may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151BK	Private Instruction: Clarinet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BK.	MUP151BK may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151BN	Private Instruction: Bassoon		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction	Prerequisites: A grade of C or better in MUP101BN.	MUP151BN may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP151BQ	Private Instruction: Saxophone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BQ.	MUP151BQ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151BT	Private Instruction: Violin		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BT.	MUP151BT may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151B W	Private Instruction: Viola		Private Instruction emphasizing	Prerequisites: A grade of C	MUP151B W may be	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	or better in MUP101BW.	repeated for credit.		
MUP151BZ	Private Instruction: Violoncello		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BZ.	MUP151BZ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151CC	Private Instruction: Contrabass		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ,	Prerequisites: A grade of C or better in MUP101CC.	MUP151CC may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP151CF	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CF.	MUP151CF may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151CI	Private Instruction: Percussion		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101CI.	MUP151CI may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151CJ	Private Instruction: Harp		Private Instruction emphasizing developmental	Prerequisites: A grade of C	MUP151CJ may be	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	or better in MUP101CJ.	repeated for credit.		
MUP151CK	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CK.	MUP151CK may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151CL	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ,	Prerequisites: A grade of C or better in MUP101CL.	MUP151CL may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP151C M	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CM.	MUP151C M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151CN	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CN.	MUP151CN may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP151CO	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CO.	MUP151CO may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151CP	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CP.	MUP151CP may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP151CQ	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting	Prerequisites: A grade of C or better in MUP101CQ.	MUP151CQ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP152AA	Private Instruction: Voice		Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AA.	MUP152AA may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152AD	Private Instruction: Piano		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AD.	MUP152AD may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152AG	Private Instruction: Harpsichord		Private Instruction emphasizing musicianship, literature, technique and performance. Four	Prerequisites: A grade of C or better in MUP102AG.	MUP152AG may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP152AJ	Private Instruction: Organ		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AJ.	MUP152AJ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152AM	Private Instruction: Guitar		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AM.	MUP152AM may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152AP	Private Instruction: Trumpet		Private Instruction emphasizing musicianship, literature, technique and	Prerequisites: A grade of C or better in MUP102AP.	MUP152AP may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP152AS	Private Instruction: French Horn		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AS.	MUP152AS may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152AV	Private Instruction: Trombone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AV.	MUP152AV may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152AY	Private Instruction: Euphonium		Private Instruction emphasizing musicianship, literature,	Prerequisites: A grade of C	MUP152AY may be	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	or better in MUP102AY.	repeated for credit.		
MUP152BB	Private Instruction: Tuba		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BB.	MUP152BB may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152BE	Private Instruction: Flute		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BE.	MUP152BE may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152BH	Private Instruction: Oboe		Private Instruction emphasizing	Prerequisites: A grade of C	MUP152BH may be	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	or better in MUP102BH.	repeated for credit.		
MUP152BK	Private Instruction: Clarinet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BK.	MUP152BK may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152BN	Private Instruction: Bassoon		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BN.	MUP152BN may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP152BQ	Private Instruction: Saxophone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BQ.	MUP152BQ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152BT	Private Instruction: Violin		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BT.	MUP152BT may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152B W	Private Instruction: Viola		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass,	Prerequisites: A grade of C or better in MUP102BW.	MUP152B W may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			bass guitar, percussion, and harp.				
MUP152BZ	Private Instruction: Violoncello		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BZ.	MUP152BZ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152CC	Private Instruction: Contrabass		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102CC.	MUP152CC may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152CF	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone	Prerequisites: A grade of C or better in MUP102CF.	MUP152CF may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP152CI	Private Instruction: Percussion		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102CI.	MUP152CI may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152CJ	Private Instruction: Harp		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102CJ.	MUP152CJ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152CK	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental	Prerequisites: A grade of C or better in MUP102CK.	MUP152CK may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP152CL	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP102CL.	MUP152CL may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152CM	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion,	Prerequisites: A grade of C or better in MUP102CM.	MUP152CM may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			harp, turntablism and electronic music.				
MUP152CN	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP102CN.	MUP152CN may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152CO	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP102CO.	MUP152CO may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP152CP	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence	Prerequisites: A grade of C or better in MUP102CP.	MUP152CP may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP152CQ	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP102CQ.	MUP152CQ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP153	Concert Choir		A mixed choir designed to emphasize choral techniques and performance of all styles of choral literature. Public performances are scheduled each semester.	Prerequisites: None.	MUP153 may require auditions. MUP153 may be repeated for credit.	Occ	L+L 1.0 5.0 5.0
MUP154AA	Jazz Vocal Ensemble		Practical and performing experience in vocal jazz. Includes music from the 1920's through the present.	Prerequisites: Auditions required or permission of Instructor.	MUP154AA may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP154AB	Jazz Vocal Ensemble		Practical and performing experience in vocal jazz. Includes music from the 1920's through the present. Requires	Prerequisites: Auditions required and two semesters in	MUP154AB may be repeated for credit.	Occ	L+L 2.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			participation in various public performances on campus and in the community throughout the semester.	A Cappella Choir or permission of Instructor.			
MUP155	Handbell Choir (Bell Canto)		Emphasis on practical and performing skills in bell ringing. Preparation of all styles of bell literature. Scheduled public performances during the year.	Prerequisites: None.	MUP155 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP157	Treble Choir		A high voice chorus designed to emphasize choral technique and performance of all styles of appropriate choral literature. Public performances are scheduled during the year. Auditions may be required.	Prerequisites: None.	MUP157 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP158	Rock Band		Emphasizes instrumental and vocal techniques and the preparation of all styles of rock band literature. Introduces music business. Requires participation in public and private performances throughout the semester.	Prerequisites: Auditions are required.	MUP158 may be repeated for a total of four (4) credits.	Occ	L+L 1.0 3.0 3.0
MUP159	Community Orchestra		Emphasis on college/community participation and the preparation of orchestral literature for public performance. Auditions may be required.	Prerequisites: None.	MUP159 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP160	Orchestra		A class designed to emphasize orchestral ensemble techniques and the preparation of all styles of orchestral literature. Public performances are scheduled during the year. Auditions may be required.	Prerequisites: None.	MUP160 may be repeated for credit.	Occ	L+L 1.0 5.0 5.0
MUP161	Community Band		Emphasis on college/community participation and the preparation of band literature for public	Prerequisites: None.	MUP161 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			performance. Auditions may be required.				
MUP162	Band		Designed to emphasize instrumental techniques and the preparation of all styles of band literature for ensemble performance. Includes public performances.	Prerequisites: None.	MUP162 may require auditions. MUP162 may be repeated for credit.	Occ	L+L 1.0 5.0 5.0
MUP163	Jazz Ensemble		Practical and performance experience in various jazz styles. Open to all students on the basis of auditions.	Prerequisites: None.	MUP163 may be repeated for credit. Open to all students on the basis of auditions. Auditions may be required.	Occ	L+L 1.0 3.0 3.0
MUP164	Jazz Improvisation I		Theoretical and performance skills in many styles of jazz improvisation.	Prerequisites: None.	MUP164 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0
MUP165	Jazz Improvisation II		Intermediate theoretical and performance skills in many styles of jazz improvisation.	Prerequisites: A grade of C or better in MUP164 or permission of Instructor.	MUP165 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0
MUP166	Jazz Piano I		Introduction to basic jazz piano skills, including chord construction, chord voicings, accompanying and solo piano arrangements.	Prerequisites: A grade of C or better in MUP131 or permission of Instructor.	MUP166 may be repeated for a total of four (4) credit hours.	Occ	L+L 1.0 2.0 2.0
MUP167	Jazz Piano II		Continued development of jazz piano techniques with emphasis on voicing formulas for ninth, eleventh, thirteenth, and altered dominant chords	Prerequisites: A grade of C or better in MUP166 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
MUP168	Mariachi Band		Emphasis on college and community participation and the preparation of mariachi band literature for public performance. Auditions may be required.	Prerequisites: None.	MUP168 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP169	Guitar Ensemble		Ensemble of the entire guitar family that may include standard, requinto, alto, bass, and	Prerequisites: None.	Auditions may be required. MUP169	Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			contrabass guitars that emphasizes guitar techniques and the preparation of all styles of guitar ensemble literature. Literature will include modern and historical guitar ensemble repertoire, new works, arrangements, and transcriptions from various musical periods and traditions as well as guitar literature from a diverse number of world musical traditions. Guitar techniques are studied and refined as they relate to the literature performed. Emphasis placed on reading and listening skills, rehearsal and preparation, conducting and performance cues, and performance experience in various guitar styles. Concerts presented throughout the semester.		may be repeated for credit.		
MUP171	Opera Workshop		A workshop in the study and performance of operatic literature.	Prerequisites: None.	MUP171 may be repeated for credit. Open to all students on the basis of auditions. Auditions may be required.	Occ	L+L 2.0 5.0 5.0
MUP181	Chamber Music Ensembles		Practical and performance experience in instrumental, vocal, and mixed ensembles.	Prerequisites: None.	MUP181 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
MUP182	Chamber Singers		Practical and performance experience in various styles of vocal music.	Prerequisites: None.	MUP182 may be repeated for credit. Open to all students on the basis of auditions. Auditions may be required.	Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP183	Jazz Combo		Jazz Combo participation provides an opportunity for students to develop improvisational skills in a variety of styles from historical and contemporary jazz practice, while offering a creative outlet for composers and arrangers.	Prerequisites: None.	MUP183 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
MUP185	Flute Choir		Ensemble of the entire flute family that may include piccolo, E flat flute, C flutes, alto flutes, and bass flute. Literature will include commissioned works, original works for standard flute choir, and transcriptions from various musical periods.	Prerequisites: None.	Auditions may be required. MUP185 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP190	Percussion Ensemble		Practical and performance experience in various percussion styles. Percussion literature from a diverse number of world musical traditions. Western European art music, various African traditions, Indian music, Japanese music, Indonesian music, Mexican, Central, and South American music, and percussion compositions from the American Experimental Tradition rehearsed and performed. Concerts presented throughout the semester. Percussion techniques are studied and refined as they relate to the literature performed. Emphasis placed on reading and listening skills, increased aesthetic discrimination. Informed performance practice and skills on all percussion instruments and traditions.	Prerequisites: None.	MUP190 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP201AA	Private Instruction: Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, harp and percussion.	Prerequisites: A grade of C or better in MUP151AA.	MUP201AA may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201AD	Private Instruction: Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AD.	MUP201AD may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201AG	Private Instruction: Harpsichord		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction	Prerequisites: A grade of C or better in MUP151AG.	MUP201AG may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP201AJ	Private Instruction: Organ		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AJ.	MUP201AJ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201AM	Private Instruction: Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AM.	MUP201AM may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201AP	Private Instruction: Trumpet		Private Instruction emphasizing	Prerequisites: A grade of C	MUP201AP may be	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	or better in MUP151AP.	repeated for credit.		
MUP201AS	Private Instruction: French Horn		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AS.	MUP201AS may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201AV	Private Instruction: Trombone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ,	Prerequisites: A grade of C or better in MUP151AV.	MUP201AV may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP201AY	Private Instruction: Euphonium		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AY.	MUP201AY may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201BB	Private Instruction: Tuba		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BB.	MUP201BB may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201BE	Private Instruction: Flute		Private Instruction emphasizing developmental improvement of	Prerequisites: A grade of C or better in MUP151BE.	MUP201BE may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP201BH	Private Instruction: Oboe		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BH.	MUP201BH may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201BK	Private Instruction: Clarinet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone	Prerequisites: A grade of C or better in MUP151BK.	MUP201BK may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP201BN	Private Instruction: Bassoon		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BN.	MUP201BN may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201BQ	Private Instruction: Saxophone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BQ.	MUP201BQ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201BT	Private Instruction: Violin		Private Instruction emphasizing developmental improvement of musicianship and technique from an	Prerequisites: A grade of C or better in MUP151BT.	MUP201BT may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP201B W	Private Instruction: Viola		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BW.	MUP201B W may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201BZ	Private Instruction: Violoncello		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon,	Prerequisites: A grade of C or better in MUP151BZ.	MUP201BZ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP201CC	Private Instruction: Contrabass		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151CC.	MUP201CC may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201CF	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CF.	MUP201CF may be repeated for credit. Repeats 99.0 99.0	Occ	L+L 1.0 0.6 0.0
MUP201CI	Private Instruction: Percussion		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four	Prerequisites: A grade of C or better in MUP151CI.	MUP201CI may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP201CJ	Private Instruction: Harp		Private Instruction emphasizing developmental improvement of musicianship, and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151CJ.	MUP201CJ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201CK	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola,	Prerequisites: A grade of C or better in MUP151CK.	MUP201CK may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP201CL	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CL.	MUP201CL may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201CM	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CM.	MUP201CM may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201CN	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an	Prerequisites: A grade of C or better in MUP151CN.	MUP201CN may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP201CO	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CO.	MUP201CO may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP201CP	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone	Prerequisites: A grade of C or better in MUP151CP.	MUP201CP may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP201CQ	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CQ.	MUP201CQ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP202AA	Private Instruction: Voice		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AA.	MUP202AA may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202AD	Private Instruction: Piano		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university	Prerequisites: A grade of C or better in MUP152AD.	MUP202AD may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP202AG	Private Instruction: Harpsichord		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AG.	MUP202AG may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202AJ	Private Instruction: Organ		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AJ.	MUP202AJ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202AM	Private Instruction: Guitar		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence	Prerequisites: A grade of C or better in MUP152AM.	MUP202AM may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP202AP	Private Instruction: Trumpet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AP.	MUP202AP may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202AS	Private Instruction: French Horn		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AS.	MUP202AS may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202AV	Private Instruction: Trombone		Private Instruction emphasizing musicianship, literature, technique and performance. Four	Prerequisites: A grade of C or better in MUP152AV.	MUP202AV may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP202AY	Private Instruction: Euphonium		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AY.	MUP202AY may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202BB	Private Instruction: Tuba		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BB.	MUP202BB may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202BE	Private Instruction: Flute		Private Instruction emphasizing musicianship, literature, technique and	Prerequisites: A grade of C or better in MUP152BE.	MUP202BE may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP202BH	Private Instruction: Oboe		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BH.	MUP202BH may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202BK	Private Instruction: Clarinet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BK.	MUP202BK may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202BN	Private Instruction: Bassoon		Private Instruction emphasizing musicianship, literature,	Prerequisites: A grade of C	MUP202BN may be	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	or better in MUP152BN.	repeated for credit.		
MUP202BQ	Private Instruction: Saxophone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BQ.	MUP202BQ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202BT	Private Instruction: Violin		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BT.	MUP202BT may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202B W	Private Instruction: Viola		Private Instruction emphasizing	Prerequisites: A grade of C	MUP202B W may be	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	or better in MUP152BW.	repeated for credit.		
MUP202BZ	Private Instruction: Violoncello		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BZ.	MUP202BZ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202CC	Private Instruction: Contrabass		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152CC.	MUP202CC may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP202CF	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CF.	MUP202CF may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202CI	Private Instruction: Percussion		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152CI.	MUP202CI may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202CJ	Private Instruction: Harp		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe,	Prerequisites: A grade of C or better in MUP152CJ.	MUP202CJ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP202CK	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CK.	MUP202CK may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202CL	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CL.	MUP202CL may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202CM	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and	Prerequisites: A grade of C or better in MUP152CM.	MUP202CM may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP202CN	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CN.	MUP202CN may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202CO	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French	Prerequisites: A grade of C or better in MUP152CO.	MUP202CO may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP202CP	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CP.	MUP202CP may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP202CQ	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CQ.	MUP202CQ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP209	Elements of Conducting		Essentials of conducting techniques used in	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			choral and instrumental ensembles including terminology, interpretation, and styles				
MUP217	Music Theatre: Broadway Solos		Study and in-class performance of scenes and solos from Broadway musical literature.	Prerequisites: None.	MUP217 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP218	Audition Techniques: Music Theater		Practice in the techniques of auditioning for musical theater. Identification and illustration techniques of the vocal and acting music theater audition.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0
MUP227	Class Guitar III		Additional fingerboard positions. Ensemble techniques and performance.	Prerequisites: A grade of C or better in MUP226 or permission of Instructor.		Occ	L+L 1.0 3.0 3.0
MUP228	Class Guitar IV		Advanced fingerboard positions. Duet and trio performances. Advanced ensemble techniques.	Prerequisites: A grade of C or better in MUP227 or permission of Instructor.	MUP228 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP231	Class Piano III		Development of intermediate piano techniques including selected solo literature, transposition of harmonic patterns, and secondary dominants.	Prerequisites: A grade of C or better in MUP132 or permission of Instructor.		Occ	L+L 1.0 3.0 3.0
MUP232	Class Piano IV		Continuation of Piano III including modulation techniques, improvisation of piano accompaniments, advanced chromatic harmony, and sight reading of advanced literature.	Prerequisites: A grade of C or better in MUP231 or permission of Instructor.	MUP232 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0
MUP233	Class Voice III		Interpretive singing through a closer examination of coloring, tone production, dynamics, and tempo indications.	Prerequisites: A grade of C or better in MUP134.		Occ	L+L 1.0 3.0 3.0
MUP234	Class Voice IV		Emphasis on the preparation of solo vocal literature for the purpose of evaluation and the integration of the music	Prerequisites: A grade of C or better in MUP233 or permission of Instructor.	MUP234 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			with the drama of the music.				
MUP240	Piano Literature		Survey of solo literature written for the piano or for other keyboard instruments (i.e. harpsichord, clavichord) but suitable for performance on the piano. Emphasis on stylistic characteristics information correlating the composer's life and period with compositional techniques used.	Prerequisites: A grade of C or better in MUP140 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
MUP241	Piano Artistry		Overview of topics and issues including practice skills, rhythm, technique, musicianship such as dynamics, ornamentation, pedaling, touch, phrasing, articulation, voicing, balance, and the manipulation of time, necessary for pianists and piano teachers in working for expression, finesse and artistry.	Prerequisites: A grade of C or better in MUP240 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
MUP250AA	Survey of Diction for Singers (English)		Introduction to the use of phonetics in the study of English song literature.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
MUP250AB	Survey of Diction for Singers (Italian/Latin)		Introduction to the use of phonetics in the study of Italian/Latin song literature	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
MUP250AC	Survey of Diction for Singers (German)		Introduction to the use of phonetics in the study of German song literature.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
MUP250AD	Survey of Diction for Singers (French)		Introduction to the use of phonetics in the study of French song literature.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
MUP251AA	Private Instruction: Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano,	Prerequisites: A grade of C or better in MUP201AA.	MUP251AA may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP251AD	Private Instruction: Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AD.	MUP251AD may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251AG	Private Instruction: Harpsichord		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AG.	MUP251AG may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251AJ	Private Instruction: Organ		Private Instruction emphasizing developmental	Prerequisites: A grade of C	MUP251AJ may be	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	or better in MUP201AJ.	repeated for credit.		
MUP251AM	Private Instruction: Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AM.	MUP251AM may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251AP	Private Instruction: Trumpet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French	Prerequisites: A grade of C or better in MUP201AP.	MUP251AP may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP251AS	Private Instruction: French Horn		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AS.	MUP251AS may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251AV	Private Instruction: Trombone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AV.	MUP251AV may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251AY	Private Instruction: Euphonium		Private Instruction emphasizing developmental improvement of musicianship and	Prerequisites: A grade of C or better in MUP201AY.	MUP251AY may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP251BB	Private Instruction: Tuba		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BB.	MUP251BB may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251BE	Private Instruction: Flute		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe,	Prerequisites: A grade of C or better in MUP201BE.	MUP251BE may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP251BH	Private Instruction: Oboe		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BH.	MUP251BH may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251BK	Private Instruction: Clarinet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BK.	MUP251BK may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251BN	Private Instruction: Bassoon		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four	Prerequisites: A grade of C or better in MUP201BN.	MUP251BN may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP251BQ	Private Instruction: Saxophone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BQ.	MUP251BQ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251BT	Private Instruction: Violin		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola,	Prerequisites: A grade of C or better in MUP201BT.	MUP251BT may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			violoncello, contrabass, bass guitar, percussion, and harp.				
MUP251B W	Private Instruction: Viola		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BW.	MUP251B W may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251BZ	Private Instruction: Violoncello		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BZ.	MUP251BZ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251CC	Private Instruction: Contrabass		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music	Prerequisites: A grade of C or better in MUP201CC.	MUP251CC may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP251CF	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CF.	MUP251CF may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251CI	Private Instruction: Percussion		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass,	Prerequisites: A grade of C or better in MUP201CI.	MUP251CI may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			bass guitar, percussion, and harp.				
MUP251CJ	Private Instruction: Harp		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202CJ.	MUP251CJ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251CK	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CK.	MUP251CK may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251CL	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music	Prerequisites: A grade of C or better in MUP201CL.	MUP251CL may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP251C M	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CM.	MUP251C M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251CN	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola,	Prerequisites: A grade of C or better in MUP201CN.	MUP251CN may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP251CO	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CO.	MUP251CO may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251CP	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CP.	MUP251CP may be repeated for credit.	Occ	L+L 1.0 0.6 0.0
MUP251CQ	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an	Prerequisites: A grade of C or better in MUP201CQ.	MUP251CQ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP252AA	Private Instruction: Voice		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AA.	MUP252AA may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252AD	Private Instruction: Piano		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AD.	MUP252AD may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP252AG	Private Instruction: Harpsichord		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AG.	MUP252AG may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252AJ	Private Instruction: Organ		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AJ.	MUP252AJ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252AM	Private Instruction: Guitar		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass,	Prerequisites: A grade of C or better in MUP202AM.	MUP252AM may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			bass guitar, percussion, and harp.				
MUP252AP	Private Instruction: Trumpet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AP.	MUP252AP may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252AS	Private Instruction: French Horn		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AS.	MUP252AS may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252AV	Private Instruction: Trombone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola,	Prerequisites: A grade of C or better in MUP202AV.	MUP252AV may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			violoncello, contrabass, bass guitar, percussion, and harp.				
MUP252AY	Private Instruction: Euphonium		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AY.	MUP252AY may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252BB	Private Instruction: Tuba		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BB.	MUP252BB may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252BE	Private Instruction: Flute		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon,	Prerequisites: A grade of C or better in MUP202BE.	MUP252BE may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP252BH	Private Instruction: Oboe		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BH.	MUP252BH may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252BK	Private Instruction: Clarinet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BK.	MUP252BK may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252BN	Private Instruction: Bassoon		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe,	Prerequisites: A grade of C or better in MUP202BN.	MUP252BN may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP252BQ	Private Instruction: Saxophone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BQ.	MUP252BQ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252BT	Private Instruction: Violin		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BT.	MUP252BT may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252B W	Private Instruction: Viola		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone	Prerequisites: A grade of C or better in MUP202BW.	MUP252B W may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.				
MUP252BZ	Private Instruction: Violoncello		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BZ.	MUP252BZ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252CC	Private Instruction: Contrabass		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202CC.	MUP252CC may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252CF	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction	Prerequisites: A grade of C or better in MUP202CF.	MUP252CF may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP252CI	Private Instruction: Percussion		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202CI.	MUP252CI may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252CJ	Private Instruction: Harp		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202CJ.	MUP252CJ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252CK	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-	Prerequisites: A grade of C or better in MUP202CK.	MUP252CK may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP252CL	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP202CL.	MUP252CL may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252CM	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe,	Prerequisites: A grade of C or better in MUP202CM.	MUP252CM may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP252CN	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP202CN.	MUP252CN may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252CO	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP202CO.	MUP252CO may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP252CP	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of	Prerequisites: A grade of C or better in MUP202CP.	MUP252CP may be repeated for credit.	Occ	L+L 2.0 1.2 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.				
MUP252CQ	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP202CQ.	MUP252CQ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0
MUP270	Musical Theatre Workshop	THO270	Workshop in the study and performance of Musical Theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.	Prerequisites: None.	MUP/THO270 may be repeated for credit.	Occ	L+L 2.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP270AA	Musical Theatre Workshop	THO270A A	Workshop in the study and performance of musical theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.	Prerequisites: None.	MUP/THO270AA may be repeated for a total of two (2) credits.	Occ	LAB 1.0 3.0 3.0
MUP273	Musical Theatre Production	THP273	Principles and techniques for musical theatre production performance. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.	Prerequisites: By audition.		Acad	LAB 1.0 5.0 5.0
MUP282AA	Volunteerism for Music: A Service Learning Experience		Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus sites. 50 hours of designated work per credit. Standard grading available according to procedures outlined in catalog.	Prerequisites: None.	MUP282AA may be repeated for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours.	Occ	LAB 1.0 1.0 0.0
MUP282AB	Volunteerism for Music: A Service Learning Experience		Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus sites. 50 hours of designated work per credit. Standard grading available according to procedures outlined in catalog.	Prerequisites: None.	MUP282AB may be repeated for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours.	Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP282AC	Volunteerism for Music: A Service Learning Experience		Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus sites. 50 hours of designated work per credit. Standard grading available according to procedures outlined in catalog.	Prerequisites: None.	MUP282AC may be repeated for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours.	Occ	LAB 3.0 3.0 0.0
MUP288	Basics of Piano Accompanying Vocal		Introduction to piano accompanying with emphasis on basic skills needed to accompany solo voice, choral singing, and congregational singing.	Prerequisites: A grade of C or better in MUP151AD or MUP231 or permission of Instructor.	MUP288 may be repeated for a total of four (4) credit hours.	Occ	LEC 2.0 2.0 2.0
MUP289	Basics of Piano Accompanying Instrument		Introduction to piano accompanying with emphasis on basic skills needed to accompany solo instruments, chamber music and musicals.	Prerequisites: A grade of C or better in MUP151AD or MUP231 or permission of Instructor.	MUP289 may be repeated for a total of four (4) credit hours.	Occ	LEC 2.0 2.0 2.0
MUP296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students major or career interest or with permission of Instructor.			
MUP296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
MUP296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
MUP296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
MUP298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
MUP298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
MUP298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development.				
MWR101	Introduction to Millwrighting		Fundamental millwright trade skills, employee/employer roles and responsibilities, and safe work practices needed for entry-level performance in the construction industry. Emphasis on attaining standard industry safety credentials, practical experience using terminology and basic measuring techniques. Response to environmental and energy efficient building concepts through green construction methods. Training for job site hazard recognition, accident prevention, and safe tool and equipment operation.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR102	Millwrighting Safety and Health Certifications		Construction hazard awareness and individual responsibility for workplace safety and health, including assessing danger, employing prevention measures, and responding to emergencies. Safe and proper use of hand and power tools, first aid, and cardiopulmonary resuscitation (CPR), and Occupational Safety and Health Administration (OSHA) regulations.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR103	Machinery Installation and Erection I		Fundamental machinery installation skills including industry standard practices such as general and assembly drawing interpretation, site inspection criteria, communication skills, pre-installation	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			inspection, storage, and staging. Includes tools and techniques for moving, lifting, elevating machines, and equipment placement. Emphasis on measuring and layout accuracy. Jobsite safety and following instructions will be stressed.				
MWR104	Machinery Installation and Erection II		Machinery installation skills used in manufacturing applications. Disassembling machinery for inspection and maintenance. Review equipment manufacturers' operating and maintenance guides and assembly instructions. Identification of component locations; measurements and tolerances; installation requirements; and alignment of parts using machine drawings. Review of safety, precision measuring tools, rigging tasks, and following instructions.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR105	Millwrighting General Skills		Overview of hand and power tools, and stationary machinery general skills used in millwright trade. In-depth review of standard tools including identification, safe operating, inspection, and manufacturer guidelines. Routine cutting, shaping and smoothing of materials with emphasis on measuring and layout accuracy in precision bench skills and field operations. Review of project drawings to promote development of job planning, preparation, and math skills. Shop safety during	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			bench layout, drill press, band saw, and grinder operation.				
MWR106	Math for Millwrighting, Hand, Power and Precision Tools		Fundamental operations with whole numbers, common fractions, decimals, percentages, and ratio and proportion. Measurement tools. Fundamentals of Algebra, linear equations, includes applied math problems. Use, maintenance and safety procedures for common hand and power tools used in the construction industry.	Prerequisites: A grade of C or better in (MWR103 and registered apprentice status) or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR107	Drives, Pulleys and Belts		Identification, application, and installation skills for typical power drive systems. Demonstrations and practice exercises on the belt, chain and gear drives. Review of safety, rigging tasks, machinery fastening methods, and mechanical shop drawings.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR108	Reading Mechanical Prints		Types of blueprints, sketching, and basic print reading. Symbols for materials, construction details, standards, and specifications. Interpretation of two-dimensional views to convey shape, characteristics, construction, and scope of project. Standard drawing methods and how to read visual and verbal cues. Recognizing shop drawings, locating machinery, calculating dimensions, equipment layout, and views.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR109	Turbine Familiarization		Function and performance of a General Electric Frame 5 Gas Turbine.	Prerequisites: Apprentice status or permission of		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Component descriptions and machine drawings, assembly/disassembly tasks and key bolting procedures.	the Apprenticeship Coordinator.			
MWR110	Cutting and Burning		Overview of cutting and burning skills using oxygen/acetylene torch equipment. In-depth review of torch cutting principles will cover parts identification, gas characteristics, torch accessories and tips, safe operating and inspection criteria, and manufacturers' guidelines for use and care.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR111	Tools and Equipment Applications		Discuss the safe and appropriate use of fall protection and emergency response procedures. Tool applications to provide opportunities for tool skill mastery and equipment operation.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR115	Millwright General Skills B - Millwright Apprenticeship		Hand and power tools, shop equipment, and precision instruments to complete various machining operations. Provides millwright skills and experience using stationary machining equipment.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR121	Structural Welding A - Millwright Apprenticeship		Careful examination of applicable codes. Includes terminology, shielded metal arc welding (SMAW) processes, equipment and safety requirements, electrode identification and applications, welding positions and deposits. Practical experience to include symbol identification, print interpretation, code citation, safe equipment setup and operation, and recognition/remediation of welding flaws. Course will focus on the written	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			examination and production of practical test plates required for American Welding Society (AWS) D1.1 certification.				
MWR131	Structural Welding B - Millwright Apprenticeship		Provides practical experience for structural welding skills used in commercial and industrial construction. Review of welding terminology, welding processes, welding equipment, and safety requirements. Discusses electrode characteristics and metal inert gas/tungsten inert gas (MIG/TIG) welding applications. Course focuses on the written examination and production of practical test plates required for American Welding Society (AWS) D1.1 certification.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR201	Shaft Alignment I		Terms, characteristics, and operating principles for the transit and laser levels. Procedures for establishing machinery and equipment elevation and alignment using precision optical instruments and installation procedures. Topics include transit and jig transit characteristics, instrument increments of measurement and accuracy, site inspection, setting up levels, determining benchmarks, and taking and recording elevation readings.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR202	Conveyor Systems		Proper layout and component alignment of machinery, equipment, and conveyor systems. Identification of proper alignment procedures. Belt splicing. Analysis of	Prerequisites: Apprentice status or permission of the Apprenticeship		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			effects of improper installation on maintenance and lifespan of equipment and conveyor systems.	p Coordinator.			
MWR203	Speciality Machinery I		Fundamentals and theory of hydraulics and pneumatics. Types, components, construction, and assembly of pumps and compressors. Inner workings of industrial pumps and compressors. Auxiliary equipment and accessories.	Prerequisites: (Registered apprentice status and a grade of C or better in MWR202) or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MWR204	Speciality Machinery II		Design, terminology, installation and operation of centrifugal and axial draft fans, monorail systems, steam turbines and generators. Layout and fabrication of monorail hangers, turns, and dips	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0
MWR205	Shaft Alignment II		Terms, characteristics, and methods for aligning machine shafts. Comprehensive review of alignment principles including conventional dial indicator and computer-aided. Setting up indicators, taking and recording indicator readings, and determining alignment correction.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR206	Rigging Hardware and Procedures		Lifting theory and practical rigging methods and procedures. Rigging attachment procedures, lifting equipment, limits of operation, and communication practices. United Brotherhood of Carpenters (UBC) rigging qualification cards.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR207	Advanced Precision Alignment Instruments		Computer aided transit and laser levels. Procedures for using Computer-aided Design (CAD), Global	Prerequisites: A grade of C or better in (MWR201 and		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Positioning System (GPS) and Satellite instruments and computer programs using metric circle, GPS coordinates, degrees, minutes, and seconds on veneer scales. Utilization of computer programs for layout.	registered apprentice status) or permission of the Apprenticeship Coordinator.			
MWR208	Compressor Theory and Maintenance		Fundamentals and theory of hydraulics and pneumatics. Types, components, construction, and assembly of pumps and compressors. Inner workings of industrial pumps and compressors. Design and installment of auxiliary equipment and accessories.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR209	Introduction to Wind Turbines		Design, function and installation of wind turbine equipment. Methods, sequences and procedures for housings, bolting, power, drive assembly and other components. Jobsite safety, print interpretation, material identification, and use of system devices and maintenance criteria. Completion of hands-on component installation projects.	Prerequisites: A grade of C or better in (MWR109 and registered apprentice status) or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR210	Solar Installer		Characteristics, design, and installation of concentrated photovoltaic (CPV) components. Methods, sequences, and procedures for layout, assembly, mounting, and elevating/positioning for solar array construction. Includes industry overview and outlook for renewable energy production.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR218	Compressor Theory and Maintenance -		Operating theory and components of types of positive displacement	Prerequisites: Apprentice status or		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Millwright Apprenticeship		compressors. Compressor configuration, operating parameters, safety, and maintenance procedures are examined.	permission of the Apprenticeship Coordinator.			
MWR219	Turbine Maintenance - Millwright Apprenticeship		Explores the machines and auxiliary equipment used in the power production industry. Highlights the function and performance of a typical gas turbine, and includes hydraulic bolting procedures.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
MWR298A A	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
MWR298A B	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE				
MWR298A C	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
NAV101	Elementary Navajo I		Basic grammar, pronunciation, and vocabulary of the Navajo language. Practice of listening, speaking, reading, and writing skills. Includes the study of the Navajo culture with participation in an off-campus Navajo cultural event	Prerequisites: None.		Acad	LEC 4.0 4.0 4.0
NAV102	Elementary Navajo II		Continued study of grammar, pronunciation, and vocabulary of the Navajo language. Emphasis on listening, speaking, reading, and writing skills.	Prerequisites: A grade of C or better in NAV101 or permission of Department or Division. Completion of prerequisites within the last three years is required.	NAV102 includes the study of the Navajo culture with participation in an off-campus Navajo cultural event.	Acad	LEC 4.0 4.0 4.0
NAV115	Beginning Navajo Conversation I		Beginning conversational Navajo with emphasis on basic listening and speaking skills, including basic pronunciation, vocabulary, sentence structure, and cultural awareness	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
NAV116	Beginning Navajo Conversation II		Continued development of speaking and listening skills for effective communication in Navajo. Focuses on vocabulary for home, community, schools, and businesses	Prerequisites: A grade of C or better in NAV115 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
NAV201	Intermediate Navajo I		Continued study of the Navajo language. Continued practice and development of listening, speaking, reading, and writing skills. Emphasis on fluency and accuracy of the Navajo language. Includes continued study of Navajo people and cultures.	Prerequisites: A grade of C or better in NAV102 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Cultural Diversity - [C]	Acad	LEC 4.0 4.0 4.0
NAV202	Intermediate Navajo II		Continued study of the Navajo language. Continued practice and development of listening, speaking, reading, and writing skills. Emphasis on fluency and accuracy of the Navajo language. Includes continued study of Navajo people and cultures.	Prerequisites: A grade of C or better in NAV201 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Cultural Diversity - [C]	Acad	LEC 4.0 4.0 4.0
NAV298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to maximize student development.				
NAV298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
NAV298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
NCE101	Introduction and Overview of Cancer Disease		Introduction and overview of the disease and treatment of cancer including cancer origin, development, pathology, staging, hematopoiesis, epidemiology, diagnosis modalities, treatment options, cancer research and differentiation of solid tumors versus nonsolid tumors. Effective analysis, synthesis, and evaluation of topics	Prerequisites: Health care professional or permission of Department or Division.	Under the terms and conditions as specified in a legal agreement between GateWay Community College and Banner Health Systems, instructors of NCE101 must be an	Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			through written discourse.		Oncology Certified Nurse and employed by Banner Health Systems.		
NCE102	Exploring the World of Nursing for the High School Student (Summer Camp)		Overview of the philosophy, core values, policies, competencies and curricular components of the Maricopa Community College District Nursing Program (MCCDNP). Introduce the use of the nursing process, utilization of critical thinking skills, and sound decision-making principles in the clinical setting. Examine the communication process, time management, stress reduction, and the transition in role expectations between High school and College Students. Explore the roles of Licensed Practical Nurse (LPN), Registered Nurse (RN) and advance practice nursing. Clinical experience (job shadowing) will be held in participating hospitals.	Prerequisites: None. Corequisites: HCC/RES109.	NCE102 is designed for High School students.	Occ	LAB 1.5 4.5 4.5
NCE103	Psychiatric Technician Overview		Students learn to care for patients with a wide variety of mental illness to include anxiety, mood, personality and psychotic disorders, as well as post-traumatic stress syndrome and behavioral issues. Psychiatric technicians follow physician/nurse instructions and hospital procedures. Identification of modalities to monitor patient's mental and emotional status, physical symptoms related to mental	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			disorders, and recognition of medication side effects. A variety of therapies will be covered to include rehabilitation and treatment programs, as well as recreational activities used as treatment options.				
NCE105	Job Preparation for the Health Care Professional		Designing and creating resumes/curriculum vitae, job interview skills, electronic portfolio, and job searching in the health care market. Appearance, dress, and questioning skills emphasized. Role-playing exercises of correct interviewing techniques.	Prerequisites: None.	NCE105 may be repeated for a total of two and one-half (2.5) credits.	Occ	LEC 0.5 0.5 0.5
NCE110	Basic First Aid		Basic first aid principles and interventions for the lay person. Topics include lacerations and bleeding control, seizures, chest pain, heat related problems, orthopedic injuries, and treatment of bites, stings, and burns	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
NCE112	Wilderness First Aid		Knowledge and skills to care for an injured or suddenly ill person in remote locations. Treatment of wounds, bone, joint and soft-tissue injuries. Treatment and immobilization for head and neck injuries. Signs, symptoms and treatment for a seizure and animal bites and stings. Assessment and treatment of patients with chest pain, diabetes and asthma. Treatment for specific environmental emergencies	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
NCE115	Nursing Healthcare Transition and Safe Passage		Overview of American nursing practice, including historical and current perspectives. Key components of	Prerequisites: Permission of Instructor.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			transitioning to Registered Nurse role in the United States. Contrasting Registered Nurse roles in US and in other countries. Career development and successful transitioning to role of nurse in the United States.				
NCE118	Ventilator Management for Nurses		Nursing care and management of the mechanically ventilated patient. Adjuncts to airway management including types and indications for use. Initiation, management and weaning of mechanical ventilation.	Prerequisites: Registered nurse or licensed practical nurse or respiratory therapist.		Occ	LEC 0.5 0.5 0.5
NCE131	Recognizing Skin Rashes in the School Aged Child		Recognition of common childhood rashes, identify allergic rash manifestations, communicable rashes and infectious rashes.	Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE150	Advanced Placement: Nurse Assisting		Prepares the advanced placement nursing assistant student for the Certified Nursing Assistant (CNA) certification or Licensed Nursing Assistant (LNA) examination. The student will care for clients across the wellness/illness continuum within the scope of practice of the CNA/LNA. Includes basic problem solving processes specific to meeting the basic and holistic needs of clients, therapeutic communication skills, as well as interventions to ensure the needs and safety of the client. Provides opportunity for the student to show	Prerequisites: One year full-time employment OR two years part-time employment of direct patient care within the past five years OR students who have successfully completed course work that included direct patient care experiences in allied health, medicine or nursing in the		Occ	L+L 2.0 4.4 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			proficiency in the performance of basic nursing assistant skills and procedures through laboratory activities and participation in the care of clients. Licensing is the exclusive responsibility of the Arizona State Board of Nursing.	past five years, OR permission of the Division Chairperson.			
NCE153	Restorative Nursing Assistant		Additional skills for nurse assisting in restorative care settings, such as reinforcing client performance of Activities of Daily Life and assistive efforts for optimizing client independence.	Prerequisites: Permission of Department or Program Director, or a grade of C or better in NCE150 or NUR158 or current CNA certificate. CNA certificate must remain in active status throughout the term of the course.	NCE153 may be repeated for credit.	Occ	L+L 1.75 1.75 1.75
NCE161	Foundation in Patient Advocacy		Foundational knowledge and skills needed for the emerging profession of patient Advocacy. Role of the patient advocate, health care delivery methods, best practices, consumer and provider perspectives, insurance benefits and costs, and legal implications.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
NCE165	Legal Aspects of Nursing		Principles of legal aspects in nursing, rules of liability, negligent conduct and principles of malpractice. Review of the scope of nursing practices, and other legal matters.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
NCE168	End of Life Care Training		Nursing care at the end of life, pain management, symptom management, ethical issues, communication, cultural considerations, loss, grief and	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			bereavement. Achievement of quality palliative care and preparation for and care at the time of death				
NCE170	Pharmacology for Nurses		Review and update of selected pharmacological classifications. Includes dosages, administration methods and reactions	(Current license as Practical Nurse or Registered Nurse) or registered as student nurse or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
NCE173	Venipuncture		Development of clinical skills for venipuncture. Emphasis on review of anatomy and physiology of vasculature of the arm, medical asepsis, and procedure.	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 0.5 0.5 LAB 0.0 24.0 1.5
NCE175	Licensed Practical Nurse Update		Role and responsibilities of the Licensed Practical Nurse. Application of nursing care for medical-surgical patients, use of the nursing process and administration of medications. Includes expanded role of the Licensed Practical Nurse, principles of safe nursing practice, legal/ethical issues, human growth and development, therapeutic communication and physical assessment skills. For Licensed Practical Nurses returning to active nursing in the acute care setting.	Prerequisites: Current license as a Practical Nurse.		Occ	LEC 10.0 6.0 6.0 LAB 0.0 12.0 12.0
NCE200	Contemporary Leadership Concepts for Health Care		Introduction to leadership and management concepts for work-readiness in health care fields. Professional role development of the beginning registered nurse. Includes organizational design and governance as well	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or	NCE200 may be repeated for a total of five (5.0) credits.	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			as leadership and management theories and qualities for the health care employee.	permission of Instructor.			
NCE201	Physical Assessment		Basic health assessment by collecting health histories and performing physical examinations. Relationship of sciences and humanities to holistic aspects of health. Assessment for normal, variations of normal, and deviations from normal findings	Current Practical Nurse (PN) or Registered Nurse (RN) license or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
NCE202	Overview of Physical Assessment of the Adult Client		Overview of interviewing techniques and approaches to documenting a comprehensive health history and physical examination assessment techniques. Emphasis on the nursing process and health assessment skills. Performance of beginning level physical assessment.	(Current Nursing or Allied Health student, or current Arizona Registered Nurse (RN) license, or Licensed Practical Nurse (LPN) license, or recent graduate of an accredited nursing program) and permission of Instructor.		Occ	LEC 1.0 1.0 1.0
NCE203	Interpretation of Laboratory Diagnostic Examinations		Utilization of laboratory diagnostic examination results for evaluation of patient conditions. Normal results for selected body fluids. Abnormal results related to pathophysiological conditions of adults. Incorporation of results of examinations to assess, modify, and evaluate therapy for patients with specific conditions.	Prerequisites: Registered Nurse or Licensed Practical Nurse Nursing students or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE204	Hemodynamics		Events of the cardiac cycle related to normal hemodynamic waveforms and pressures. Purpose, procedure and potential	Prerequisites: Registered nurse (RN) respiratory therapist or cardiovascula		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			complications related to hemodynamic invasive lines. Trouble shooting and preventative procedures for hemodynamic invasive lines. Normal and abnormal pressure forms related to various forms of pathophysiology. Treatments and interventions for specific cardiac diseases. Impact of paced rhythms, and intraaortic balloon pumps on normal hemodynamic waveforms. Safe removal procedure for hemodynamic devices.	r technician with knowledge of dysrhythmia recognition.			
NCE205	Emergency Room Nursing		Roles of emergency health team. Medical/legal issues specific to emergency room care. Triage classifications for specific emergency room/department situations, nursing care for selected conditions, trauma, and disease processes. Organ donation issues, discharge procedures and client education.	Prerequisites: Registered Nurse (RN) or Licensed Practical Nurse (LPN) or currently enrolled in a nursing program or permission of Instructor.		Occ	LEC 4.0 4.0 4.0
NCE207	Recognition and Nursing Management of the Deteriorating Patient		This course will provide a scenario/simulation-based problem solving approach to recognize and manage the patient who has the potential for a deteriorating status in a wide variety of concept-oriented conditions. The ultimate goal is to prevent or reverse the clinical deterioration and achieve optimum patient outcomes.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE208	Neonatal Pathophysiology		Pathophysiology and physiologic adaptations of the neonate to include assessment and management of respiratory, cardiac,	Prerequisites: Registered therapist registered nurse (RN) or pharmacist		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			hematological, immunological, neurological and fluid and electrolyte disorders. Acid-base regulation and hemodynamic dysfunction.	with neonatal experience.			
NCE209	SCHOOL HEALTH ASSISTING		The role of the school health assistant. Legal issues related to the school health setting. Performance of vision, hearing, and scoliosis screenings. Documentation, vital signs, triage guidelines in the school health setting. Common diseases that affect school-age children. Child abuse issues and protocol. Common medications and their side effects. Documentation and procedures related to drug administration	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
NCE210	School Nurse Emergency Assessment Skills		Update of emergency assessment in the school setting. Includes emergency assessment of seizures, asthma, head and neck injuries, heat-related problems, bites, stings, and burns, and orthopedic injuries	School nurse school health aide other health professionals or permission of Instructor.		Occ	LEC 1.0 1.0 1.0
NCE212	Patient Education		Current concepts relevant to planning and implementing a teaching plan, and the role the nurse has in patient education. Patient education instructional methods, educational theories, nursing process and case management in patient education. Focus on patient advocacy through education.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.	NCE212 may be repeated for a total of five (5.0) credits.	Occ	LEC 0.5 0.5 0.5
NCE213ND	Long-Term Care Nursing Update		Medicare and insurance documentation procedures for the long-term care patient. Medical-legal issues that	Prerequisites: Registered nurse (RN) licensed practical		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			pertain to the long-term care patient. Specific nursing procedures performed for the long-term care patient.	nurse (LPN) or health worker currently employed in a long-term care setting.			
NCE214CA	Basic Electrocardiogram Interpretation		Focuses on recognition of common cardiac rhythms. Includes major and minor reportable occurrences which affect a patient's status and priority interventions.	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0
NCE214ME	Advanced Metrology and IV Drug Therapy		Advanced course in intravenous and pediatric calculations. Preparation for NCLEX-RN exam and Registered Nurse review of complex medication calculations. Emphasis on safe clinical practice using the nursing process to analyze and calculate pediatric fractional doses and critical care medications.	Prerequisites: Registered nurse or current student in Associate Degree Nursing program.		Occ	LEC 1.0 1.0 1.0
NCE214MF	Advanced IV Drug Therapy		Advanced course in drug calculation and administration using the ratio/proportion and dimensional analysis methods. Focus on intravenous medications and titrations for critical care, pediatric and high risk obstetric medications	Current student in Associate Degree Nursing program or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE214MI	Math and Medications for Intermediate Nursing Students		Focus on basic mathematical concepts to calculate metric-apothecary conversion, dosage problems, intravenous flow rates using the ratio/proportion and dimensional analysis methods. These calculations will focus application to acute care, long-term care, and pediatric specialty areas	Current student in Nursing program or permission of Department or Division.		Occ	LEC 0.5 0.5 0.5
NCE214M M	Math/Methods of Drug Calculation		Focuses on basic mathematical concepts using decimals and fractions to calculate	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			fractional and metric-apothecary conversion dosage problems and intravenous flow rates. Emphasis on the dimensional analysis problem solving method				
NCE214MO	Math/Methods for Beginning Nursing Students		Focus on basic mathematical concepts to calculate metric-apothecary conversion, dosage problems and intravenous flow rates. Includes calculation problems with oral, parenteral, and reconstitution medications. Emphasis on the ratio/proportion and dimensional analysis problem solving methods	Current student in Associate Degree Nursing program or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE214ND	Nursing Developmental Skills for Health Providers		Updating specific nursing areas in order to enhance success in nursing courses and/or employment.	Prerequisites: Previous coursework or experience in nursing related skills or permission of Instructor.	NCE214ND may be repeated for a total of ten (10) credit hours.	Occ	LEC 1.0 1.0 1.0
NCE214OP	Orientation to Nursing Program		Overview of the philosophy, mission, vision, Nurse of the Future Competencies, student learning outcomes, and the constructivist framework of the Maricopa Nursing program. Student expected to be prepared with basic concepts of therapeutic communication, the nursing process, pharmacology, introductory concepts of intravenous therapy and knowledge of fundamental concepts. Primary content areas: nursing process, with emphasis on the use of the nursing process to develop a plan of care; utilization of critical thinking skills; problem-	Prerequisites: Designee/advanced placement into the Nursing Program or permission of the Nursing Director.	NCE214OP designed for advanced placement students (i.e., transfer students, returning students, and/or Practical Nurses).	Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			solving strategies, the communication process; psychiatric nursing competencies and role transition between LPN and RN scope of practice.				
NCE214PO	Tutored NCLEX Review For Nursing Students		Brief review of nursing care by systems using an NCLEX review book. Focus on nursing process, prioritizing, and critical thinking related to application of nursing care in case study situations. Also practice multiple-choice questions.	Prerequisites: Currently enrolled nursing student, or permission of Instructor.	NCE214PO may be repeated for a total of six (6) credit hours.	Occ	LEC 2.0 2.0 2.0
NCE215AA	Nursing Update: Pain Management		Comprehensive pain assessment and pain management. Pharmacological agents, treatment modalities, and delivery systems. Regulatory agency policies, standards of care, and documentation guidelines.	Prerequisites: Registered Nurse or Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor.	NCE215AA may be repeated for a total of five (5) credit hours.	Occ	LEC 0.5 0.5 0.5
NCE215AB	Nursing Update: Wound and Skin Care		Wound and skin assessment and documentation guidelines. Skin care protocols and interventions to prevent pressure ulcers and promote optimal healing. Wound care products and treatment options.	Prerequisites: Registered Nurse or Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor.	NCE215AB may be repeated for a total of five (5) credit hours.	Occ	LEC 0.5 0.5 0.5
NCE215AC	Nursing Update: Stoma Care		Care of the patient with fecal and urinary diversions. Appliance selection, stoma care, and management of potential complications. Includes nutritional, psychological, and educational aspects of care.	Prerequisites: Registered Nurse or Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor.	NCE215AC may be repeated for a total of five (5) credit hours.	Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
NCE215AD	Nursing Update: Advances in Diabetes Management		Diabetes management and implications. Risk factors of diabetes and lifestyle modifications. Medication updates and new technological advances for the treatment of Type I and Type II diabetes.	Prerequisites: None.	NCE215AD may be repeated for a total of five (5) credit hours.	Occ	LEC 0.5 0.5 0.5
NCE215AE	Nursing Update: Cardiac Care		Provides nurses with up-to-date information on prevention, diagnosis, and treatment of cardiovascular and related diseases.	Prerequisites: Registered Nurse (RN) or Licensed Practical Nurse (LPN) or other licensed personnel working with cardiac patients.	NCE215AE may be repeated for a total of ten (10) credit hours.	Occ	LEC 0.5 0.5 0.5
NCE215ND	Nursing Skills Update		Enhancement and reinforcement of specific nursing skills. Special needs patients, patient assessment techniques, medicolegal responsibilities, and diagnostic procedures.	Prerequisites: None.	NCE215ND may be repeated for a total of ten (10) credit hours.	Occ	LEC 0.5 0.5 0.5
NCE216AA	School Health Update: Assessment Skills		Assessment skills for the school health setting. Assessment and management of selected school health problems including abdominal pain, head and spinal cord injuries, and environmental hazards.	Prerequisites: Registered Nurse or Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor.	NCE216AA may be repeated for a total of five (5) credit hours.	Occ	LEC 0.5 0.5 0.5
NCE216ND	School Nurse Skills Update		Enhancement and reinforcement of specific skills encountered in the school health setting. Special needs of physically and emotional disabled children. Review of special procedures and medications used with special children populations.	Prerequisites: Current school nurse or school health aide.	NCE216ND may be repeated for a total of ten (10) credits.	Occ	LEC 0.5 0.5 0.5
NCE218	Ventilator Management for Critical Care and		Patient care including indications, management and complications in	Prerequisites: Health care professional,		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Emergency Room Nurses		mechanically ventilated patients. Types of mechanical ventilation, pharmacological management, care of the mechanically ventilated patient, intubation and extubation, and tracheostomy management.	or permission of Department or Division.			
NCE219	Advanced First Aid for School Health Staff		Advanced first aid principles and interventions for staff working in a school health setting. Topics include assessment and management of medical emergencies such as asthma, anaphylaxis, environmental emergencies, seizures and playground trauma	(Basic first aid training or experience) or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE220	Advanced IV Therapy Skills for RNs		Intravenous (IV) therapy skills utilized by the Registered Nurse in home health, long term care, and the acute care setting. Includes principles of care for specific central venous catheters, and infusion pumps. Also, legal implications of advanced IV practice	Current license as registered nurse or enrolled in an accredited RN program or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE221	Patient Care Technician Skills		Patient care technician skills and techniques which include: drawing blood, performing a variety of specimen collections, observing and reporting patient status, assisting in patient preparation and electrode placement for electrocardiograms, suctioning patients, performing urinary catheterizations, documentation and reporting of skill completion, maintaining patient confidentiality, and recognizing legal and ethical commitments related to patient care technician skills.	Prerequisites: Certified Nurse Assistant (CNA), Nurse Assistant course or equivalent within the past year, and permission of Continuing Education Program Director and/or Instructor.		Occ	LEC 3.0 2.5 2.5 LAB 0.0 24.0 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
NCE223	LPN-IV Therapy and Medication Skills		Terminology and anatomy related to intravenous therapy. Drug response factors, dosage, calculations, intravenous site dressing change, intravenous administration equipment, and initiating intravenous therapy. Documentation and procedures for laboratory check lists. Meets state nursing board requirements for initiating intravenous therapy and administrating intravenous medications.	Prerequisites: Current license as Practical Nurse or permission of Instructor.		Occ	LEC 2.5 2.0 2.0 LAB 0.0 24.0 1.5
NCE224	Nursing Case Management		Case management and managed care responsibilities, insurance strategies, utilization management, legal and ethical issues, quality improvement and discharge planning.	Prerequisites: Registered Nurse (RN) Licensed Practical Nurse (LPN) social worker or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
NCE225	Introduction to School Nursing		Registered nursing skills necessary to prepare for employment in a School Health Setting. Triageing, school health office management skills, and legal issues and scope of practice of the school nurse. Health screening basics and immunization protocols, emergency response skills, and health teaching.	Current Arizona Registered Nurse (RN) license, or Licensed Practical Nurse (LPN) license, or recent graduate of an accredited nursing program, or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
NCE226	Pediatric Nursing Clinical Skills		Clinical application of nursing theory to the pediatric patient. Focuses on effective physical assessment techniques, and changes in nursing skills for the pediatric patient.	Prerequisites: Registered Nurse (RN), or Licensed Practical Nurse (LPN), or permission of Instructor. Corequisites: NCE227.	NCE226 is designed for the experienced nurse who is considering transferring to a pediatric unit of an acute care	Occ	LAB 1.0 45.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					hospital. NCE226 may be repeated for a total of five (5.0) credits.		
NCE227	Science of Pediatric Nursing		Preparation for relocation to the pediatric unit the hospital nurse. Application of pediatric nursing theory based upon the nursing process.	Prerequisites: Registered Nurse (RN), or Licensed Practical Nurse (LPN), or permission of Instructor. Corequisites: NCE226.	NCE227 may be repeated for a total of five (5.0) credits	Occ	LEC 1.0 1.0 1.0
NCE228	Holistic Nursing Fundamentals-Certification Exam Preparation		Preparation for the holistic nursing certification examination. Includes holistic nursing philosophy, foundations, core values, standards, and principles. Covers self-care and self-reflection, theories, Integrative Health and Wellness Assessments (IHWA), in addition to development of, goals, and strategies for implementation of individualized care plans. Also includes complementary modalities as well as theories and research in the field of holistic nursing.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
NCE230	PICC Line Insertion		Overview of the care, maintenance and insertion of Peripherally Inserted Central Catheter (PICC) lines. Advantages of PICC lines, legal implications, types, as well as anatomy and physiology for proper insertion.	Prerequisites: Current license as a Registered Nurse.		Occ	L+L 0.5 24.0 1.5
NCE231	Pharmacology for Critical Care and Emergency Room Nurses		Pharmacology update for emergency department and critical care personnel on new drug therapies and related patient care protocols.	Prerequisites: Registered Nurse or permission of Instructor.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Pharmacological management of cardiac and respiratory system disorders, complications, and emergency interventions. Patient management protocols for conscious sedation. New pharmacological agents for the treatment and management of diabetes and other endocrine disorders.				
NCE232	Health Assessment of the School Age Child		Comprehensive health assessment foundation. Development of interviewing skills, obtaining health histories, and conducting physical examinations on the school age child. Identification and management of minor illnesses and health problems common to school age children	School nurse or current Registered Nurse (RN) licensure.		Occ	LEC 3.0 3.0 3.0
NCE233	Nursing Care of the Special Needs Child		Overview of congenital and acquired pediatric conditions, chronic illnesses and physical challenges that may lead to developmental delay or educational dysfunction. Application of the nursing process to provide care for the special needs child. Developmental assessment tools, skilled nursing interventions and environmental factors. Resources for disabled and chronically ill children through family, educational system and the community	School nurse or current registered nurse (RN) licensure.		Occ	LEC 3.0 3.0 3.0
NCE234	Fundamentals of School Nursing Practice		Assessment, development, implementation and evaluation of school health programming. Focus on nursing theory as it relates to school health programming. Program management,	School nurse or current registered nurse (RN) licensure.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional development, dealing with change, health education, interdisciplinary interaction and the role of the professional nurse in the school setting				
NCE235	Conscious Sedation		Conscious sedation criteria and protocols. Nursing responsibilities and interventions pre-, intra- and post-procedure. Medications commonly used for conscious sedation, monitoring equipment, potential complications and required documentation.	Prerequisites: Registered nurse (RN) or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE237	Care and Management of Vascular Access Devices		Types of vascular catheters, types of clients who use them and clinical indications for each. Care for the different devices, differences in tip locations and the types of infusion therapies infused through each device.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE242	Twelve Lead Electrocardiogram (EKG) Interpretation		Normal and abnormal wave forms of the cardiac cycle. Normal and abnormal heart axis. Differences between ventricular and supraventricular tachycardia. Various types of blocks. Identification of heart chamber enlargement. Injury, ischemic and necrotic heart patterns. Effect of specific drugs and electrolyte disorders on electrocardiograms (EKG)	Basic electrocardio gram (EKG) experience or previous course work in dysrhythmia interpretation or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE243	Nursing Skill and Competency Review		Resume writing, interpersonal and therapeutic communication, teamwork concepts, IV	Prerequisites: Permission of Instructor.		Occ	LEC 3.5 2.5 2.5 LAB 0.0 90.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Skills and pharmacological review. Central line catheter care, nutritional management, urinary catheterization, NG insertion and suctioning, respiratory management, basic wound care, and patient assessment skills.				
NCE245	Introduction to Holistic Nursing		Philosophy and theories of holism applied to nursing practice. Focus on the physical, emotional, psychological, social, and spiritual needs of the client. Emphasis on application of the nursing process from a holistic perspective. Healing relationship model, self-care concept, nurse-patient communication, health care ethics, therapeutic environment, and cultural sensitivity.	Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.	NCE245 may be repeated for a total of five (5.0) credits	Occ	LEC 1.0 1.0 1.0
NCE246AA	Basic Fetal Heart Monitoring		Application of basic concepts and knowledge of fetal monitoring to assist the antepartum and intrapartum nurse in providing effective nursing care to ensure fetal well-being.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.	NCE246AA is designed for the experienced nurse who is considering transferring to a maternal/child health hospital unit. NCE246AA may be repeated for a total of five (5.0) credits.	Occ	LEC 1.0 1.0 1.0
NCE249	Basic Critical Care Nursing		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			following systems: cardiac, respiratory, neuroscience, gastrointestinal, renal, endocrine and hematology, hemodynamics and ventilator management	nursing program or permission of Instructor.			
NCE249AA	Critical Care: Cardiac		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the cardiac system	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor.		Occ	LEC 1.0 1.0 1.0
NCE249AB	Critical Care: Respiratory		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the respiratory system	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor.		Occ	LEC 1.0 1.0 1.0
NCE249AC	Critical Care: Neurologic		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the neurologic system	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor.		Occ	LEC 1.0 1.0 1.0
NCE249AD	Critical Care: Endocrine and Renal		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			endocrine and renal systems	nursing program or permission of Instructor.			
NCE249AE	Critical Care: Gastrointestinal		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the gastrointestinal system	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE251	Telemetry Nursing		Cardiac anatomy and physiology and the conduction system. Elements of a cardiac assessment. Recognition of arrhythmia and cardiac abnormalities seen on electrocardiogram (EKG). Indications for temporary and permanent pacing. Drug groups and their interactions specific to the cardiac patient. Normal and abnormal lab values for the cardiac patient. Pre- and post-procedure care for cardiac procedures. Nursing interventions and emergency treatment.	Prerequisites: Registered Nurse (RN) and a grade of C or better in NCE214CA or equivalent.		Occ	LEC 3.0 3.0 3.0
NCE255	Death, Grief, and Bereavement		Grief and bereavement care for the client and family. Ethical and cultural issues in terminal care, children and death, AIDS related death issues, suicide, homicide and survivor interventions	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
NCE257	Science of Maternity Nursing		Preparation for relocation to the maternal/child health unit the hospital nurse. Application of maternal/child nursing	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed	NCE257 may be repeated for a total of five (5.0) credits.	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			theory based upon the nursing process.	Practical Nurse (LPN) license or permission of Instructor.			
NCE258	Maternity Nursing Clinical Skills		Clinical application of nursing theory to the maternal/child patient. Focuses on effective physical assessment techniques, determining neonatal status, and maternal physiological and psychological well-being.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.	NCE258 is designed for the nurse who would like to transfer to the maternal/child health unit of an acute care hospital. NCE258 may be repeated for a total of five (5.0) credits.	Occ	LAB 1.0 1.0 1.0
NCE259	Advanced Critical Care Nursing		Provides the experienced Critical Care Nurse with an opportunity to build on basic critical care knowledge. Advanced concepts in assessment, hemodynamic monitoring, pathophysiology of disease processes, and use of the Nursing Process for critically ill patients with complex, multisystem disorders. Designed to help prepare experienced Critical Care Nurses for the certification examination for Critical Care Nursing offered by the American Association of Critical Care Nurses.	Prerequisites: A grade of C or better in NCE249 or Registered Nurse working in Critical Care or permission of Instructor.		Occ	LEC 4.0 4.0 4.0
NCE260	Intra-Aortic Balloon Pump		Mechanics of the cardiac cycle. Physiologic effects of the intra-aortic balloon pump. Indications and contraindications. Components, operation, care and maintenance of the intra- aortic balloon pump. Complications	Prerequisites: Registered Nurse (RN) or cardiovascular technician who has completed a Basic EKG		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and nursing implications with the use of the intra-aortic balloon pump.	course and has Critical Care Training.			
NCE261	Ultrasound-Guided Peripheral Intravenous Access		Technique of ultrasound-guided peripheral venous access. Client selection for procedure, selection of vasculature, and troubleshooting using ultrasound guidance equipment. Use of equipment and hands-on, simulated practice of catheter placement.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor.		Occ	L+L 0.5 24.0 1.5
NCE262	Legal Medical Consulting		Role of the legal medical consultant in specific litigation. Importance of the law library. Definition of ethics, professionalism, standards of practice, discovery and disclosure. Steps and procedures involved with legal research. Role of the legal medical expert as a witness. Alternative conflict resolution. Role of independent medical examination. Role of the insurance industry and risk management in legal medical issues	Licensed medical personnel or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
NCE264	Advanced Legal Medical Consulting/Civil Procedure		Reinforcement and broadening of knowledge and skills required for a career in legal medical consulting. Civil litigation process from initial client contact, discovery, and trial to post trial period. Intensive case analysis and thorough exploration of legal theory, procedure, and strategy. Discussion of the Federal and Arizona Rules of Civil Procedure and hands on experience in the preparation of legal	Prerequisites: A grade of C or better in NCE262 or equivalent.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			documents and the trial notebook				
NCE265	Triage Skills for Urgent Care Staff		Identification of high risk aspects of frequent medical complaints. Instruction in avoiding errors when triaging patients in the urgent care setting.	Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE266	Recognition and Management of the Patient with Allergies		Allergy process, types of allergies and their presentations, levels and types of reactions, as well as treatment, diagnostic testing and prevention strategies.	Prerequisites: Health care professional or permission of Department or Division.		Occ	LEC 0.5 0.5 0.5
NCE267	IV Medication Administration and Advanced Metrology		Knowledge and skills to safely prepare and administer intravenous medications and solutions. Includes advanced metrology to accurately calculate IV drug dosages and infusion rates.	Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.	NCE267 may be repeated for a total of five (5.0) credits	Occ	L+L 1.0 2.0 2.0
NCE268	Non Rash Infectious Diseases in the Pediatric Patient		Epidemiology and symptomology of non rash producing infectious diseases often seen in children and identify ways to prevent, reduce, and control their spread. Meningococcal disease, Tuberculosis, influenza, Methicillin Resistant Staph Aureus (MRSA), pertussis, conjunctivitis, mononucleosis, streptococcal infections, hepatitis, and enterovirus D68.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.		Occ	LEC 0.5 0.5 0.5
NCE271	Pediatric Diabetes		Provides an overview of diabetes in the pediatric population. Epidemiology and etiology, types of diabetes in children and symptom recognition, medication and diet management,	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN)		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			complications, new technological devices, and family interventions.	license or permission of Instructor.			
NCE272	Certified Medication Assistant		Completion of this course will qualify the student to sit for the certification examination to administer prescribed medications within defined state laws (Legislation A.R.S.32-1650.01).	Prerequisites: Students will need to have been a Certified Nursing Assistant (CNA) or a Licensed Nursing Assistant (LNA) for a minimum of six months, or completed the CNA or LNA course within the past year, or completed semester I of the Practical Nurse (PN) program, or completed the first block of the Registered Nurse (RN) program, or permission of the Director or Program Director as students who have completed components of nursing programs may qualify for a CMA waiver.		Occ	L+L 4.0 6.0 8.0
NCE273	Rehabilitation Technician		The rehabilitation technician (RT) performs patient related care tasks, assists patients with activities of daily living and provides direct patient care under supervision of the licensed nurse and or licensed therapist.	Prerequisites: Valid certification or license as a nurse assistant (CNA or LNA) OR completion of a nurse		Occ	L+L 2.0 2.5 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Obtains and records patient vital signs. Monitors and records daily intake and output. Obtains specimens, including non-invasive body fluids and blood specimens. Performs electrocardiogram (ECG) electrode placement, running ECG strips, and blood glucose monitoring. Assists physician, licensed nurse, or licensed therapist with diagnostic tests, clinical procedures, and other tasks as requested. Communicates patient needs and observed/reported changes in patient condition to supervising licensed nurse, physician or licensed therapist. Documents all interactions as directed by licensed nurse, physician, or licensed therapist. Assists licensed therapist in performing therapeutic procedures. Carries out assigned rehab tech duties such as cleaning treatment areas, completing equipment maintenance and transporting patients.	assistant program within the past twelve (12) months OR permission of the Nursing Director.			
NCE274	Industry Telemetry Nursing		Overview of cardiac anatomy, physiology, and the conduction system. Demonstration of a cardiac assessment, review of normal and abnormal lab values, arrhythmias, and cardiac abnormalities seen on an electrocardiogram (ECG). Introduction to medications specific to the cardiac patient. Overview of cardiac procedures, nursing interventions, and emergency treatment.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.		Occ	L+L 4.0 4.5 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
NCE275	Registered Nurse Update		Update of current general principles of nursing care, procedures and medication.	Prerequisites: Current Registered Nurse License.		Occ	LEC 10.0 6.0 6.0 LAB 0.0 12.0 12.0
NCE276	Clinical Teaching in Nursing: An Overview		Applies Nurse of the Future Competencies and educational Constructivism learning theory to develop a foundation for nursing faculty. Designed to assist instructor to consistently plan, guide, and evaluate learning activities for nursing students in clinical environments.	Prerequisites: Current Registered Nurse License.	NCE276 may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0
NCE277	Clinical Teaching in Nursing: A Practicum Experience		Overview of the process, concepts and skills related to supervising nursing students in the clinical area with application of concepts learned. A mentored clinical experience to guide and facilitate the student in the development of skills of clinical instruction.	Prerequisites: Current Arizona Registered Nurse License, BSN required, but MSN preferred as per our accrediting and approval bodies. All health and safety requirements per the current Maricopa Nursing Clinical Instructor Handbook must be met prior to admission into this course.	NCE277 may be repeated for a total of seven and a half (7.5) credits.	Occ	LEC 1.5 0.5 0.5 LAB 0.0 45.0 3.0
NCE278	Critical Care Nursing		Foundations in critical care for nurses who are interested in entering the critical care environment or nurses who seek to increase their expertise in critical care. Includes basic anatomy, physiology, and pharmacology. Disease	Prerequisites: Current license as a Registered Nurse or recent graduate of an accredited nursing program or		Occ	L+L 4.0 4.5 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			management for the following systems: cardiac, respiratory, neuroscience, gastrointestinal, renal, endocrine and hematology, hemodynamics and ventilator management. The lab includes case studies, simulation, and lab practice.	permission of Instructor and/or employer. Licensed Practical Nurses will be allowed to take the course by request of their employer and/or with permission of the Instructor.			
NCE282AA	Volunteerism for Nursing: A Service Learning Experience		Service-learning field experience within human service organization/agency.	Prerequisites: Permission of Instructor.	NCE282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0
NCE290	Concepts of Aging		Examine several concepts of aging: physiological, cognitive, spirituality, health promotion, and pharmacology of the older adult. Focus will be placed on caring for the aging patient and their family.	Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor.	NCE290 may be repeated for a total of five (5.0) credits	Occ	LEC 1.0 1.0 1.0
NCE291	Nursing Skills and Patient Care in Simulation		Review of basic skills. Remediation, guided learning, and simulation performance.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse	NCE291 may be repeated for a total of five (5.0) credits.	Occ	LAB 1.0 45.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of Instructor.			
NCE292	Simulation for Patient Care Experiences		Review and practice of nursing skills. Remediation, guided learning, and simulation performance.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor.	NCE292 may be repeated for a total of ten (10) credits.	Occ	LAB 2.0 90.0 6.0
NCE293	Team Management of Deteriorating Patients in Simulation		Development of skills needed to effectively identify, assess, monitor, and respond to patients who are either deteriorating or at risk of deteriorating related to injury or disease process.	Prerequisites: Current licensure as a health professional or registered as a student in a health professional program of study, or permission of Instructor.	NCE293 may be repeated for a total of ten (10) credit hours.	Occ	LAB 2.0 90.0 6.0
NCE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
NCE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
NCE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
NET127	How Computers Work		Functional description of hardware component operation of the IBM and compatible microcomputers. Electronic and electromechanical components operation during bootup process and operating system utilization, RAM, RAM caching and the microprocessor, and data storage. Data storage description includes floppy disks, hard disk, CD-ROM, other disk type drives, and tape backup	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
NET181	Visual BASIC for Technology		Introductory coverage of programming techniques in Visual BASIC. Flowcharting, pseudocoding, coding, testing, and documenting programs in accordance with specifications	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
NET183AA	Operating Systems		Designed to develop an understanding of operating systems and their interaction with hardware, software, networking, security, troubleshooting, IP addressing, user interfaces and operating system installation. The course is intended to help prepare students for entry-level industry certifications.	Prerequisites: None. BPC101AA recommended for those students unfamiliar with basic computer operations.		Occ	L+L 2.0 3.0 3.0
NET220	Health Information Networking		Designed to equip students with knowledge and skills applicable to entry-level careers in healthcare networking. Using Cisco hardware and software, aims to develop an in-depth understanding of the critical principles and practices required in this specialized field.	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0
NLT100	Nail Technology I		Introduction to basic nail services, general sciences, safety, and infection control practices in the nail care industry.	Prerequisites: None.		CLK	200
NLT105	Nail Technology II		Apply advanced techniques and continue to build on previous concepts learned in nail services, general sciences, safety, and infection control in the nail industry.	Prerequisites: None.		CLK	200
NLT110	Nail Technology III		This course is designed to prepare Nail Technology students for the written and practical examinations for Arizona State Board of Cosmetology licensure.	Prerequisites: None.		CLK	200

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Students will master and apply previous concepts learned in nail services, general sciences, and business skills in the nail care industry.				
NMS120	Media in Cyberspace		Using on-line material, investigates how the new information technologies affect the more traditional media. The effect on consumers and society.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
NMS160	Sports Media Careers		Introduction to the professions, organizations, and media occupations within sports management. Examines professional and not-for-profit organizations, career opportunities in collegiate and community sports organizations, and career opportunities in the traditional and non-traditional media arenas. Includes resume writing, cover letters, career choices, interviews, and job searching strategies for sports management organizations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
NMS215	Electronic Newsroom		Creating, writing, designing, managing, promoting, and publishing the online student publication through team effort. Emphasis on style, consistency, and news/information judgment combined with community involvement.	Prerequisites: A grade of C or better in JRN210 or NMS120 or JRN213 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
NUC100	Introduction to Nuclear Medicine Technology		Role of the nuclear medicine technologist job duties, responsibilities, working conditions and work environments. Certification and licensing requirements for the nuclear medicine technologist, shadowing experience specific to	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the nuclear medicine department.				
NUC101	Essentials of Nuclear Medicine Technology		Introduction to the essential information for the Nuclear Medicine Technology program.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.0 1.0 1.0
NUC103	Nuclear Medicine Image Evaluation I		Faculty-led case presentation with reinforcement of processing parameters.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0
NUC110	Introduction to Radiation Physics and Biology for Nuclear Medicine		Atomic structure, types of radiation, radiation biology, and radiation protection.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC112	Nuclear Medicine Quality Control Laboratory		Introduction to the nuclear medicine laboratory rules, equipment operation, and quality control (QC).	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 3.0
NUC113	Nuclear Medicine Clinical Applications Laboratory		Establishing competencies by demonstration of nuclear medicine imaging and non-imaging procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 3.0
NUC114	Nuclear Medicine Instrumentation		Principles of safe operation for nuclear medicine imaging and non-imaging equipment, including quality control.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC116	Nuclear Medicine Procedures I		Skeletal, respiratory, gastrointestinal (GI) anatomy, physiology, pathology, and related clinical procedures and techniques.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC120	Radiopharmaceutical/ Pharmaceutical Administration for the Nuclear Medicine Technologist		Techniques for the administration of radiopharmaceuticals and pharmaceuticals used by the nuclear medicine technologist.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.5 1.5 1.5
NUC122	Nuclear Medicine Imaging I Lab		Protocols for opening/operating in a nuclear medicine department. Quality control, radiation safety, performance of bone	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			scans, lung scans, and genitourinary procedures.				
NUC124AA	Nuclear Medicine Theory I: Part A		Non-imaging instrumentation to include gas-filled detector systems, scintillation detection systems, statistics, nuclear counting statistics, and laboratory equipment. Imaging instrumentation to include planar scintillation cameras, multicrystal scintillation cameras, solid-state detector systems, single photon emission computed tomography (SPECT).	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5
NUC124AB	Nuclear Medicine Theory I: Part B		Imaging instrumentation to include quality control of imaging systems and maintenance of image archiving systems. Computers in instrumentation, types of computers, number systems, general structure of computer hardware, software, communications, data management, internet, nuclear medicine computer systems and quality control of these systems.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5
NUC126	Nuclear Medicine Procedures II		Endocrine and genitourinary anatomy, physiology, pathology, and clinical procedures and techniques.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC130	Professionalism and Patient Care		Communication and interaction skills, patient assessment, procedures involving transport, medical records, infection control, emergency, safety and venous access.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 3.0
NUC170AA	Nuclear Medicine Cardiac Imaging I		Cardiovascular anatomy, physiology and pathology as it relates to cardiac system imaging.	Prerequisites: Admission to Nuclear Medicine		Occ	LEC 1.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Cardiac stress and rest testing, myocardial perfusion and viability, equilibrium radionuclide angiograph (ERNA or MUGA or RVG). First pass angiography, infarct imaging, major vessels flow studies and detection of deep vein thrombosis.	Technology program.			
NUC170AB	Nuclear Medicine Cardiac Imaging II		Cardiovascular imaging instrumentation, procedures, and processing. Radiopharmaceuticals and interventional drugs used in cardiovascular imaging. Non-pharmacologic stress testing. Patient care for the cardiac patient including procedures and pharmaceuticals.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5
NUC180	Nuclear Medicine Physics and Instrumentation		Principles of safe operation for nuclear medicine imaging and non-imaging equipment, including positron emission tomography (PET) systems and quality control.	Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American Registry of Radiologic Technologists (ARRT) [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine.		Occ	LEC 4.0 4.0 4.0
NUC202	Nuclear Medicine Clinical Practicum I		Supervised clinical application of current nuclear medicine practice reinforcing didactic and laboratory concepts. Focus on developing competency in introductory nuclear medicine procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0
NUC203	Nuclear Medicine Image Evaluation II		Student led/instructor coached evaluation of	Prerequisites: Admission to		Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			images related to clinical situations and procedures. Demonstration of technical skills.	Nuclear Medicine Technology program.			
NUC212	Clinical Practicum I		Orientation to facility policies and departmental organization. Under direct supervision, clinical application of current nuclear medicine practice of patient care and clinical experiences with an emphasis on quality control (QC) procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.5 9.0 0.0
NUC214	Fundamentals of Nuclear Medicine II		Principles and applications of statistics as they relate to Nuclear Medicine. Configuration, function, and application of computers and networks in nuclear medicine.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5
NUC216	Nuclear Medicine Procedures II		Endocrine and genitourinary anatomy, physiology, pathology, and clinical procedures and techniques.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC220	Sectional Anatomy for Nuclear Medicine		Sectional human anatomy in the transverse, sagittal and coronal planes. Emphasis on the brain, neck, thorax, abdomen/pelvic cavity and extremities.	Prerequisites: Admission to the Nuclear Medicine Technology Program or permission of Program Director.	NUC220 may be repeated up to five (5) times for a total of fifteen (15) credits. Repeats 5.0 15.0	Occ	LEC 3.0 3.0 3.0
NUC222	Clinical Practicum II		Supervised clinical application of current nuclear medicine practice reinforcing didactic and laboratory concepts. Demonstrate developing competency in introductory nuclear medicine procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0
NUC223	Nuclear Medicine Image Evaluation II		Student led/instructor coached evaluation of images related to clinical situations and procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Demonstration of technical skills.				
NUC224	Fundamentals of Nuclear Medicine III		Policy and regulations of delivery systems health policy and ethics regarding the access of health care. Medical informatics implementation of clinical system data entry, patient data, administration, and medical quality assurance mandatory patient centered documentation for federal, state, regulatory, and credentialing agencies professional medical ethics, legal issues and patient rights.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5
NUC232	Clinical Practicum III		Under the supervision of licensed technologists, enhance skills and knowledge of current nuclear medicine practice with a focus on broadening procedure competencies.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0
NUC233	Nuclear Medicine Image Evaluation III		Advanced student-led serial evaluation of images related to clinical situations and procedures. Demonstration of technical skills.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0
NUC234	Nuclear Medicine Department Administration		Practical methods of leadership, ethics, advocacy, department management, continuous quality improvement, coding and reimbursement, and accreditation.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC236	Nuclear Medicine Procedures III		Central nervous system (CNS), tumor, hematopoietic and infection clinical procedures and techniques to demonstrate anatomy, physiology, and pathology.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC240	Clinical Pathology for Diagnostic Imaging		Causes of disease etiology and impact on the human body.	Prerequisites: Admission to Nuclear		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Common physiologic effects of disease on body systems. Correlations of disease, physical findings, clinical laboratory values and diagnostic imaging. Role of Diagnostic Medical Imaging (DMI) modalities in the diagnosis and treatment of selected disease processes as part of the health care team. Cultural implications in the prevention and treatment of disease.	Medicine Technology program.			
NUC242	Clinical Practicum IV		Independently function under limited supervision of licensed technologists. Advancement of skills to include all required competencies. Practice diverse and appropriate methods of performing procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0
NUC243	Nuclear Medicine Image Evaluation IV		Evaluation of images related to clinical situations and procedures. Demonstration of technical skills. Peer-reviewed literature.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0
NUC244	Nuclear Medicine Radiopharmacy		Radiopharmacy and adjunctive pharmaceutical preparation, calculation, administration, and quality control.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 3.0 4.0 4.0
NUC246	Nuclear Medicine Procedures IV		Radiopharmaceutical therapy and theranostics clinical procedures and techniques.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
NUC250	Fundamentals of Computed Tomography and Elements of Magnetic Resonance Imaging		Introduction to principles and operation of computed tomography (CT) scanner and magnetic resonance imaging (MRI).	Prerequisites: Admission to Nuclear Medicine Technology program or permission of		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				the Program Director.			
NUC251	Computed Tomography and Hybrid Imaging Case Analysis		Anatomy, physiology, pathology, and techniques related to the performance of clinical computed tomography (CT) and hybrid imaging.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
NUC252	Clinical Practicum V		Orientation to facility policies and procedures and departmental organization. Reinforcement and broadening of knowledge base related to patient care and the roles and responsibilities of the nuclear medicine technologist at the advanced level. Focus on progression to independent level of function in the areas of patient care, radiation protection, instrumentation imaging, non-imaging and computers, radiopharmacy, diagnostic and therapeutic procedures. Ethical and professional behaviors, Health Insurance Portability and Accountability Act (HIPAA) requirements.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0
NUC253	Nuclear Medicine Image Evaluation V		Emphasis on positron emission tomography (PET) therapy imaging and other studies new to the nuclear medicine imaging field. Evaluation of images related to clinical situations and procedures including patient history, patient preparation, name and energy of radiopharmaceutical, method of localization, dosimetry, and method of clearance. Normal and abnormal	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			distribution. Need for additional views and/or procedures. Technical limitations, protocol and equipment parameters and procedure results. Examination of professional journal articles.				
NUC259	Fundamentals of Research in Nuclear Medicine		Fundamental components to nuclear medicine research.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC260	Research Methods and Design		Exploration of knowledge and effective analysis of resources to promote best practice in imaging professions. Introduction to research design, statistical reasoning, and interpretation of the medical literature. Provide a basis for understanding and interpreting the literature for use in evidence-based practice.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC261	Emerging Technologies		Exploration of new and emerging technologies that will become tomorrow's standard of practice. Introduction to these new ideologies. Development and presentation of research findings.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 2.0 2.0 2.0
NUC262	Capstone Practicum		Culminating course to integrate the educational process to facilitate role transition from student to graduate nuclear medicine technologist.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director.		Occ	LAB 1.5 9.0 0.0
NUC263	Nuclear Medicine Research Presentation and Publication		Presentation of research project at local, regional, or national meeting or submission of research project to scientific journal for publication. Critical evaluation of research projects.	Prerequisites: A grade of C or better in NUC259 and NUC260.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
NUC270	Nuclear Medicine Scientific Method		Scientific research in the field of nuclear medicine. Abstract writing to include research study results, objectives, methods, observational and analytical techniques, and conclusion.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.0 1.0 1.0
NUC272	Cardiac Practicum		Comprehensive, advanced-level practical experience at a designated cardiac clinical site.	Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American Registry of Radiologic Technologists (ARRT) in Nuclear Medicine [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine.	NUC272 may be repeated five (5) times for a total of seven and a half (7.5) credits.	Occ	LAB 1.5 9.0 0.0
NUC276	Nuclear Cardiology		Cardiovascular anatomy, physiology, and pathophysiology as it relates to cardiac imaging including cardiac blood flow, electrophysiology, and function. Pharmacologic and exertional stress testing methods used in conjunction with imaging. Cardiac imaging instrumentation, acquisition and processing procedures, artifacts, and quality control.	Prerequisites: Admission to Nuclear Medicine Technology program or certified by ARRT [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in nuclear medicine.		Occ	L+L 3.0 4.0 4.0
NUC280	Nuclear Medicine PET Physics and Instrumentation		Principles of safe operation for positron emission tomography (PET) systems and required quality control.	Prerequisites: Admission to Nuclear Medicine Technology program or certified by		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				the American Registry of Radiologic Technologists (ARRT) [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine.			
NUC283	PET/CT Practicum		Comprehensive, advanced-level practical experience at a Positron Emission Tomography/Computed Tomography (PET/CT) clinical site.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director.	NUC283 may be repeated five (5) times for a total of seven and a half (7.5) credits.	Occ	LAB 1.5 9.0 0.0
NUC290	Nuclear Medicine Seminar		Review of content areas addressed on the American Registry of Radiologic Technologists (ARRT), Nuclear Medicine Technology Certification Board (NMTCB), and Arizona state licensure examinations. Study and test-taking strategies.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC291	Computed Tomography Registry and Board Exam Preparation	ICE291	Discussion of concepts outlined in the American Registry of Radiologic Technologists (ARRT) published content specifications for their post-primary certification exam in computed tomography (CT).	Prerequisites: Permission of the Program Director or Instructor.		Occ	LEC 1.0 1.0 1.0
NUC292	Radiopharmacy Practicum		Comprehensive, high level practical experience at a Radiopharmacy clinical site. Cooperative work with direct and indirect supervisory personnel in a Radiopharmacy setting. Emphasis on technical components of Radiopharmacy procedures and radiation safety.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
NUC303	Nuclear Medicine Image Evaluation III		Advanced student-led serial evaluation of images related to clinical situations and procedures. Demonstration of technical skills.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0
NUC316	Nuclear Medicine Procedures III		Central nervous system (CNS), tumor, hematopoietic and infection clinical procedures and techniques to demonstrate anatomy, physiology, and pathology.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC322	Nuclear Medicine Clinical Practicum II		Under the supervision of licensed technologists, enhance skills and knowledge of current nuclear medicine practice with a focus on broadening procedure competencies.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0
NUC350	Fundamentals of Computed Tomography and Elements of Magnetic Resonance Imaging		Introduction to principles and operation of computed tomography (CT) scanner and magnetic resonance imaging (MRI).	Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director.		Occ	LEC 3.0 3.0 3.0
NUC359	Research Methods and Design		Exploration of knowledge and effective analysis of resources to promote best practice in imaging professions. Introduction to research design, statistical reasoning, and interpretation of the medical literature. Provide a basis for understanding and interpreting the literature for use in evidence-based practice.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC372	Cardiac Practicum		Comprehensive, advanced-level practical experience at a designated cardiac clinical site.	Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American	NUC372 may be repeated five (5) times for a total of seven and	Occ	LAB 1.5 9.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Registry of Radiologic Technologists (ARRT) in Nuclear Medicine [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine.	a half (7.5) credits.		
NUC382	PET/CT Practicum		Comprehensive, advanced-level practical experience at a positron emission tomography/computed tomography (PET/CT) clinical site.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director.	NUC382 may be repeated five (5) times for a total of seven and a half (7.5) credits.	Occ	LAB 1.5 9.0 0.0
NUC392	Computed Tomography Clinical Practicum I		Use of correct computed tomography instrumentation, protocol implementation and positioning techniques. Application of patient safety measures and follow As Low As Reasonably Achievable (ALARA) practices to reduce radiation dose as established by the institution. Practice within established ethical and legal guidelines. Use of effective communication skills.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0
NUC402	Computed Tomography Clinical Practicum II		Reinforcement of clinical skills in a practical setting within established ethical and legal guidelines. Focus on use of correct tomography instrumentation, protocol implementation, and positioning techniques and application of patient safety measures and As Low As Reasonably Achievable (ALARA) practices to reduce radiation dose as	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			established by the institution. Also includes use of effective communication skills.				
NUC403	Nuclear Medicine Image Evaluation IV		Evaluation of images related to clinical situations and procedures. Demonstration of technical skills. Peer-reviewed literature.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0
NUC416	Nuclear Medicine Procedures IV		Radiopharmaceutical therapy and theranostics clinical procedures and techniques.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
NUC422	Nuclear Medicine Clinical Practicum III		Independently function under limited supervision of licensed technologists. Advancement of skills to include all required competencies. Practice diverse and appropriate methods of performing procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0
NUC432	Capstone Practicum		Culminating course to integrate the educational process to facilitate role transition from student to graduate nuclear medicine technologist.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director.		Occ	LAB 3.0 9.0 0.0
NUC434	Nuclear Medicine Department Administration		Practical methods of leadership, ethics, advocacy, department management, continuous quality improvement, coding and reimbursement, and accreditation.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUC444	Nuclear Medicine Radiopharmacy		Radiopharmacy and adjunctive pharmaceutical preparation, calculation, administration, and quality control.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 3.0 4.0 4.0
NUC450	Computed Tomography and		Anatomy, physiology, pathology, and techniques related to the	Prerequisites: Admission to Nuclear		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Hybrid Imaging Case Analysis		performance of clinical computed tomography (CT) and hybrid imaging.	Medicine Technology program or permission of Program Director.			
NUC459	Nuclear Medicine Research Presentation and Publication		Presentation of research project at local, regional, or national meeting or submission of research project to scientific journal for publication. Critical evaluation of research projects.	Prerequisites: A grade of C or better in NUC259 and NUC260.		Occ	LEC 3.0 3.0 3.0
NUC490	Nuclear Medicine Seminar		Review of content areas addressed on the American Registry of Radiologic Technologists (ARRT), Nuclear Medicine Technology Certification Board (NMTCB), and Arizona state licensure examinations. Study and test-taking strategies.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0
NUR101	Student Success in Nursing		Individual self-awareness and self management strategies for success with nursing study, clinical reasoning and testing success. Emphasis on the development of prioritizing and delegation skills for the nursing student.	Prerequisites: Permission of Instructor.	NUR101 may be repeated for a total of four (4) credit hours. Repeats 4.0 4.0	Occ	LEC 1.0 1.0 1.0
NUR102	Nursing Process Transition		Transitions paramedics to scope and practice of nursing. Focuses on nursing concepts and theories to meet basic human needs across the lifespan throughout the wellness/illness continuum. Theoretical concepts focus on clients of all ages with selected physiological and psychological alterations. Emphasis on expanding the paramedic's skills and experience to transition to the role of the nurse utilizing nursing process and critical thinking in	Prerequisites: Arizona or National Paramedic Registry Certificate, and application and admission to Maricopa Nursing advanced placement. One year current healthcare work experience required or		Occ	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			acute care and community settings.	permission of Nursing Department Chairperson. Corequisites: NUR103.			
NUR103	Nursing Science Transition		Application of nursing concepts and theories of health promotion to nursing care to meet basic human needs. Provides opportunity for the paramedic to develop clinical competency in selected nursing skills and care of clients across the lifespan experiencing altered physiologic functioning. Includes clinical experience with individuals, families, and small groups of clients in acute, long-term, and community settings to develop care plans, teaching plans, and discharge plans.	Prerequisites: Arizona or National Paramedic Registry Certificate, and application and admission to Maricopa Nursing with advanced placement. Minimum of one year current healthcare work experience required or permission of Nursing Department Chairperson. Corequisites: NUR102.		Occ	LAB 4.0 12.0 12.0
NUR104AA	Structured Nursing Review		Structured nursing tutorial assistance and nursing study skills to help students achieve success in their respective block of nursing courses. Nursing process and critical thinking application skills emphasized.	Prerequisites: None. Corequisites: Enrollment in the Nursing program or permission of Department Chair.	NUR104AA may be repeated for a total of six (6) credit hours. Course offered as Credit (P) No credit (Z) basis.	Occ	LEC 0.5 0.5 0.5
NUR104AB	Structured Nursing Review		Structured nursing tutorial assistance and nursing study skills to help students achieve success in their respective block of nursing courses. Nursing process and critical thinking application skills emphasized.	Prerequisites: None. Corequisites: Concurrent enrollment in the Nursing program or permission of Department Chair.	NUR104AB may be repeated for a total of eight (8) credits. Course offered as Credit (P) No credit (Z) basis.	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
NUR106	Nursing Theory and Science Transition (Paramedic Bridge)		Introduction and utilization of Nurse of the Future competencies to develop knowledge, skills, and attitudes to provide safe, quality patient care across the wellness-illness continuum in selected medical-surgical and mental health patients. Basic care concepts and nursing process are utilized to meet the needs of adult and older adult patients.	Prerequisites: (Arizona or National Paramedic Registry Certificate), acceptance into the Maricopa Nursing advanced placement, NUR187, and (one year current work experience utilizing Paramedic scope of practice or permission of Nursing Department Chairperson.)	NUR106 is intended for experienced paramedics seeking advanced placement to Maricopa Nursing.	Occ	LEC 9.0 5.5 5.5 LAB 0.0 157.5 10.5
NUR150	Practical Nurse Bridge Course		Designed to bridge previously gained healthcare knowledge, skills, and abilities of the military Veteran student and/or Licensed Practical Nurse (LPN) seeking to refresh knowledge in the role of the practical nurse. Course includes didactic, laboratory, and clinical experiences for practical nursing including concepts and theories related to care of geriatric, adult, pediatric, and childbearing clients. Areas of didactic and clinical focus include: role of the practical nurse collaborating with other members of the healthcare team; concepts of health promotion and disease/illness prevention; therapeutic communication techniques; nutritional concepts; medication administration to include	Prerequisites: A military Veteran with a health care designation (medic/corps man) or a licensed practical nurse (LPN) who requires a refresher program. Approval of the Nursing Chair or designee and application packet completion is required.		Occ	LEC 12.0 9.0 9.0 LAB 0.0 180.0 12.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			pharmacokinetics and pharmacodynamics of medications, nursing considerations in medication administration, and dosage calculation; documentation and concepts related to information technology. Emphasis in clinical practicum is on nursing care of pediatric and child-bearing families, and older adult residents of long term care facilities with selected alterations in health; concepts of delegation, prioritization and management of care for the practical nurse is integrated.				
NUR151	Nursing Theory and Science I		Introduction to fundamentals of nursing theory and practice utilizing critical thinking based on the nursing process and principles of evidence based practice. Focus on meeting basic human needs within the wellness/illness continuum. Theoretical concepts related to holistic care of well, geriatric, and adult clients. Provides safe nursing care to clients with selected alterations in health. Introduction to professional nursing practice. Applies concepts of health promotion, disease/illness prevention. Provides care based upon integration of pathophysiology, nutrition, communication and physical, biological, and psycho-social sciences. Uses information technology in performing and evaluating client care	Prerequisites: Admission into the Nursing Program.		Occ	LEC 10.0 5.0 5.0 LAB 0.0 15.0 15.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
NUR152	Nursing Theory and Science I		Introduction of Nurse of the Future competencies as a foundational framework for development of the professional nurse. Basic care concepts, the nursing process, and clinical reasoning are utilized to meet the needs of adult and older adult patients.	Prerequisites: Admission into the Nursing program.		Occ	LEC 9.0 4.0 4.0 LAB 0.0 16.88 15.0
NUR158	Nurse Assisting		Introduction to the role of the nursing assistant for clients across the wellness/illness continuum within the nurse assisting scope of practice. Includes basic problem solving processes specific to meeting the basic and holistic needs of clients, therapeutic communication skills, interventions to ensure the needs and safety of the client, specific types of diseases, conditions and alterations in behavior of the client. Focus is on the special needs of the older adult client in the acute and long-term care settings, and basic care skills and procedures. Provides opportunity for the development of clinical competency in the performance of selected nurse assisting skills and procedures through participation in the care of clients.	Prerequisites: Reading and math assessment as well as completion of all required Health and Safety documents.	NUR158 final admission requirements are determined by the Program Director and/or Division Chair and may be based on employer (partner) requirements if the student is employed by the requesting agency. NUR158 meets the application and admission requirements for Maricopa Nursing programs.	Occ	LEC 4.5 2.5 2.5 LAB 0.0 6.0 6.0
NUR160PN	Practical Nursing Theory and Science I		Core values of the practical nursing program, nursing history, standards, and scope of practice of the practical nurse. Safe nursing care of clients with selected alterations in health; fundamental concepts of health promotion, disease/illness	Prerequisites: Admission into the Fast Track Practical Nursing Program.		Occ	LEC 11.0 6.0 6.0 LAB 0.0 225.0 15.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			prevention. Nursing care based upon integration of pathophysiology, nutrition, communication and physical, biological, and psycho-social sciences. Uses information technology in performing and documenting client care.				
NUR171	Nursing Theory and Science II		Application of nursing theory and practice utilizing critical thinking based on the nursing process and evidence based practice. Holistic nursing concepts of health promotion, disease/illness prevention, and health restoration for adult and geriatric clients. Role development as the professional nurse member of the health care team. Participation in client teaching and discharge planning. Application of previous knowledge of physical, biologic, psycho-social sciences, and the cultural and spiritual aspects of nursing care. Application of nursing concepts in the development of plan of care to include pathophysiology, nutrition, pharmacology, and skills in communication. Uses information technology in planning, documenting, and evaluating client care	Prerequisites: A grade of C or better in NUR151 or permission of Nursing Department Chairperson.		Occ	LEC 8.0 4.0 4.0 LAB 0.0 12.0 12.0
NUR172	Nursing Theory and Science II		Utilization of Nurse of the Future competencies and clinical judgment measures to develop knowledge, skills, and attitudes to provide safe, quality patient care across the wellness-illness continuum in selected medical-	Prerequisites: A grade of C or better in (BIO202 and NUR152) or permission of Nursing Department Chair.		Occ	LEC 9.0 5.5 5.5 LAB 0.0 11.81 10.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			surgical and mental health patients.				
NUR180PN	Practical Nursing Theory and Science II		Holistic practical nursing concepts and theories related to care of childbearing, pediatric, adult, and geriatric clients. Role of the practical nurse collaborating with other members of the healthcare team. Concepts of health promotion and disease/illness prevention. Nursing care based upon integration of pathophysiology, nutrition, communication and physical, biological and psycho-social sciences. Information technology in performing and documenting client care. Emphasis on nursing care related to pediatric, child-bearing families, and adult clients with selected alterations in health; concepts of delegation, prioritization and management of care for the practical nurse based on the core values of the nursing program.	Prerequisites: A grade of C or better in NUR160PN.		Occ	LEC 11.0 6.0 6.0 LAB 0.0 225.0 15.0
NUR187	Pharmacology and Medication Administration		Overview of selected drug classifications and categories. Emphasis on principles of drug metabolism and effects, interactions and adverse reactions, medication administration, and nursing implications for safe practice with a focus on adult and older adult patients. Requires application of previous knowledge of physical, biological, and social sciences.	Prerequisites: Permission of Nursing Department/ Division Chair.		Occ	LEC 1.5 1.5 1.5
NUR191	Practical Nursing Transition		Overview of the role of the practical nurse in the care of patients. Includes	Prerequisites: A grade of C or better in		Occ	LEC 3.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			nursing standards and scope of practice of the practical nurse. Emphasis on nursing care related to pediatric and care of the well childbearing patient and childbearing family. Focus on the role of practical nurse in providing care through interventions consistent with established nursing care plans.	NUR171, or NUR172, or permission of Nursing Department Chair.			LAB 0.0 3.0 3.0
NUR251	Nursing Theory and Science III		Application of critical thinking strategies related to holistic care of the newborn, pediatric, and childbearing clients. Integration of concepts related to holistic care of adults and geriatric clients with selected acute and chronic alterations in health. Integration of professional nursing standards in role development. Utilization of previous knowledge of physical, biologic, psycho-social sciences, and the cultural, spiritual aspects of nursing care. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care.	Prerequisites: A grade of C or better in (BIO202, BIO205 and NUR171) or permission of Nursing Department Chairperson.		Occ	LEC 8.0 4.0 4.0 LAB 0.0 12.0 12.0
NUR252	Nursing Theory and Science III		Application of critical thinking strategies and clinical judgment measures related to holistic care of the newborn and childbearing patients. Integration of concepts related to holistic care of adults and older adult patients with selected acute and chronic alterations in health. Integration of professional nursing	Prerequisites: A grade of C or better in [(CRE101 or appropriate district placement) and NUR172 and PSY101] or permission of Nursing Department Chair.		Occ	LEC 9.0 5.5 5.5 LAB 0.0 11.81 10.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			standards in role development. Utilization of previous knowledge of physical, biologic, psycho-social sciences, and the cultural, spiritual aspects of nursing care. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care.				
NUR271	Nursing Theory and Science IV		Integration of critical thinking strategies for complex holistic needs of high-risk clients with multi- system health alterations. Application of strategies related to holistic care of the client with psychiatric/ mental health disorders. Introduction to community based care. Assimilation of professional role into practice. Evaluation of care based on the knowledge of physical, biologic, psycho-social sciences, and the cultural and spiritual beliefs of clients. Development of nurse leadership and management roles. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care	Prerequisites: A grade of C or better in NUR251 or permission of Nursing Department Chairperson.		Occ	LEC 7.0 4.0 4.0 LAB 0.0 9.0 9.0
NUR283	Nursing Theory and Science IV		Applies Nurse of the Future competencies and clinical judgment measures to practice and manage care for the child/family unit and adults requiring complex care throughout the wellness/illness continuum, and prepare for transition from	Prerequisites: A grade of C or better in (BIO205 and NUR252) or permission of Nursing Department Chair.		Occ	LEC 9.0 5.5 5.5 LAB 0.0 11.81 10.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			student to professional nurse.				
NUR291	Nursing Clinical Capstone		Synthesis of the nursing process to facilitate role transition from student to graduate nurse within a preceptorship experience. Development of nurse leadership and management roles.	Prerequisites: A grade of C or better in NUR271 or permission of Nursing Department Chairperson.		Occ	LAB 2.0 6.0 6.0
NUR292	Overview of Current Nursing Principles and Practice across the Lifespan		Update of current principles and practice guidelines for returning nurses in pediatric, obstetrical and geriatric clients. Overview of nursing concepts, therapeutic interventions, and evidence-based practice for clients across the lifespan.	Prerequisites: Permission of Instructor.		Occ	LEC 2.0 2.0 2.0
NUR295	Registered Nurse Refresher		Update of current principles of nursing theory and practice for registered nurses. Didactic instruction meets all Arizona State Board of Nursing requirements: nursing process and patient centered care; pharmacology, medication calculation, and medication administration; communication; critical thinking, clinical decision making and evidence-based practice; delegation, management, and leadership; working with interdisciplinary teams; meeting psychological and physiological needs of adult clients with medical-surgical conditions; ethics; documentation including electronic health records; informatics; and quality improvement. Concentrated preceptorship	Prerequisites: Permission of Instructor.		Occ	LEC 10.0 6.0 6.0 LAB 0.0 180.0 12.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			experience under the supervision of a registered nurse with faculty guidance. Individualized teaching and learning opportunities to build confidence, competence and an increased level of independent functioning.				
NUR296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
NUR296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
NUR296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
NUR296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
NUR298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development. COMMON COMPETENCY COURSE				
NUR298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
NUR298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
NUR301	Role of the Professional Nurse		Introduction to the transition from Registered Nurse to the role and scope of the professional baccalaureate nurse. Review of nursing philosophies, theories, and conceptual models.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Focus on concepts and attributes of the baccalaureate nurse.				
NUR302	Health Assessment and Promotion		Overview of the health assessment process, including methods of taking health history, physical examination skills, documentation, and health promotion strategies. Emphasis on health promotion across the lifespan among diverse populations, health equity, and community resources.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
NUR303	Nursing Research and Evidence-Based Practice		Use of evidence-based research findings for improving clinical practice and person-centered care outcomes. Exploration of quantitative and qualitative research methodologies. Emphasis on the critical review of research studies and their applications to clinical practice.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 3.0 3.0 3.0
NUR304	Public and Community Health Nursing		Exploration of population health as a system of diverse cultures, values, and subgroups with varying socioeconomic circumstances and levels of vulnerability. Emphasis on factors affecting community settings using epidemiological data and functional health pattern assessments to plan, organize, and deliver services in community settings, including health education and promotion, illness prevention, and disaster preparedness. Includes project and simulation-based field experiences.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
NUR305	Legal and Ethical Topics in Nursing		Overview of health policy, legislative and regulatory guidelines, the Nurse Practice Act,	Prerequisites: Admission into the RN to BSN		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and legal and ethical concepts that influence the practice of professional nursing. Focus on ethical decision-making models.	program; current, unencumbere d RN license.			
NUR401	Systems-Based Thinking in Nursing		Overview of systems-based thinking in nursing and its role in improving the quality and safety of patient care. Focus on coordination of healthcare systems components to address complex issues and deliver optimal care.	Prerequisites: Admission into the RN to BSN program; current, unencumbere d RN license.		Occ	LEC 3.0 3.0 3.0
NUR402	Healthcare Technology and Informatics		Exploration of various modalities and integration of healthcare technology and informatics to manage and communicate data, advance health information literacy, and improve patient outcomes. Focus on components, applications, problem solving, and data management strategies.	Prerequisites: Admission into the RN to BSN program; current, unencumbere d RN license.		Occ	LEC 3.0 3.0 3.0
NUR403	Nursing Leadership and Management		Overview of leadership qualities, abilities, and personal style including strengths and challenges. Focus on understanding the differences between management and leadership. Emphasis on communication and transparency in management and leadership.	Prerequisites: Admission into the RN to BSN program; current, unencumbere d RN license.		Occ	LEC 3.0 3.0 3.0
NUR404	Advanced Nursing Capstone		Capstone project that provides the baccalaureate nursing student with the opportunity to assess, identify, propose, and present an evidence-based project that addresses an issue significant to nursing practice. The project will synthesize knowledge from coursework and	Prerequisites: Admission into the RN to BSN program; current, unencumbere d RN license.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			experience. The capstone project will be under the guidance and in collaboration with program faculty and a preceptor from the facility or entity.				
NVH245	Navajo Culture and Heritage		Survey of the Navajo people, including their history, culture/aesthetics, education, spirituality, and language	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
OAS101	Computer Typing I: Keyboarding and Formatting		Keyboard mastery; letters, tables, and reports; office production; and manuscripts	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
OAS101AA	Computer Typing I: Keyboard Mastery		Incorporates correct touch typing principles	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7
OAS101AB	Computer Typing I: Letters, Tables and Reports		Letter, table, and report formatting	Prerequisites: A grade of C or better in OAS101AA or permission of Department or Division.		Occ	L+L 1.0 1.7 1.7
OAS101AC	Computer Typing I: Production and Manuscript		Simple office projects and manuscripts	Prerequisites: A grade of C or better in OAS101AB or permission of Department or Division.		Occ	L+L 1.0 1.7 1.7
OAS102	Computer Typing II: Document Production		Arrangement of letters, memos, manuscripts, and tabulation; speed/accuracy improvement	Prerequisites: A grade of C or better in OAS101 or permission of Department or Division.		Occ	L+L 3.0 5.0 5.0
OAS103AA	Computer Typing: Skill Building I		Individual progression on speed/accuracy drills.	Prerequisites: Ability to touch type at 25 words per minute or permission of Department or Division.		Occ	L+L 1.0 1.7 1.7
OAS107	Professional Telephone Techniques		Proper telephone techniques and professional business manners	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
OAS108	Business English		Comprehensive coverage of correct use of English grammar including spelling, punctuation, capitalization, and number style mechanics in a business context	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
OAS111AA	Computer Keyboarding I	BPC111A A	Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7
OAS118	10-Key By Touch		Touch system of numeric keys on ten-key pads	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7
OAS120	Financial Record Keeping		Computerized application of concepts and procedures of office record keeping; includes finance and personnel records, inventory systems, banking procedures and cash control; decision-making process for solving financial problems	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
OAS125	Introduction to the Professional Office		Expectations of the professional in the electronic office of today. Realistic and practical coverage of roles, responsibilities, and environment	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
OAS181	Medical Office: Vocabulary		Basic medical vocabulary with emphasis on pronunciation, spelling, and definition	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
OAS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
OPH101	Introduction to Eye Care		This course will introduce the student to the meaning of ophthalmology and the different members of the ophthalmic eye care team. The student will learn different certification levels and the importance of professional development. Body structure, body function, anatomy and physiology of the eye will be discussed in detail. Proper moving, transferring and safety issues of patients; as well as knowledge about diverse populations, geriatric patients and patients with special needs will be demonstrated and discussed. An introduction to infection control, agency guidelines, and using proper aseptic technique will be discussed and demonstrated.	Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101.		CLK	54
OPH102	Introduction to Ophthalmology		This course will introduce the student to the meaning of ophthalmology and the different members of the ophthalmic eye care team. The student will learn different certification levels and the importance of professional development as well as learn medical terminology and how to perform cardiopulmonary resuscitation (CPR) on infants, children, and adults. Students will be	Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101.		CLK	50

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			introduced to infection control procedures, legal and ethical considerations, and regulatory requirements. Students will learn about the Health Insurance Portability and Accountability Act (HIPAA) and privacy laws, and the importance of confidentiality in written and communication form.				
OPH103	Ophthalmic Scheduling and Billing Practices		A certified medical administrative assistant (also called a medical office secretary or medical office assistant) keeps an ophthalmic healthcare office running efficiently and effectively. The ophthalmic medical administrative assistant is often the first to greet and help patients, and can help set the stage for a patient's experience. Students will gain the knowledge and skills relevant for working in the ophthalmic medical office setting such as greeting and checking in patients, collecting personal, medical, and insurance information. Schedule, reschedule, and verify patient appointments. Schedule appointments with secondary care providers and coordinate physician schedules. Ophthalmic medical administrative assistants will coordinate and maintain patient flow within the medical office by communicating patient arrivals or delays. This course will prepare students for the Certified Medical Administrative Assistant Examination through the National	Prerequisites: OPH102		CLK	100

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Healthcareers Association (NHA).				
OPH104	Ocular and Systemic Diseases of the Eye		This course will introduce students to the signs and symptoms of specific eye diseases, as well as how disease processes affect the visual system. Students will be introduced to how systemic diseases with ocular manifestations occur, impact visual acuity, and are treated. Students will learn how to obtain and record vital signs, set up a vision lane to screen school aged children, prepare and provide guidance to school aged children to prepare them for examinations, utilize specialized eye screening equipment and provide referrals for further care. This course prepares students for the Arizona Department of Health Vision Screener Certification.	Prerequisites: OPH103 or Program Manager approval.		CLK	50
OPH105	Ocular and Refractive Clinical Assessment, Skills, and Procedures		The Ocular and Refractive Clinical Assessment, Skills, and Procedures course will prepare students to work in the exciting and ever evolving world of ophthalmic medical assisting. This course will help students develop basic skills such as triaging patient complaints and symptoms, taking a good patient history, and performing comprehensive examinations on patients with various medical eye conditions. Students will study anatomy and physiology of the eye, pharmacology, and infection control procedures. Additionally,	Prerequisites: 1. Must show proof of employment at an ophthalmic office. 2. Successful completion of RDG100 or higher or appropriate reading placement into CRE101.		CLK	240

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			this course will prepare students to use and care for various types of ophthalmic instruments, assist with procedures, and conduct a variety of tests. This course will explain the principles of optics and refractive states of the eye to aid in caring for patients needing contact lenses or reading eyeglasses, and measuring the patient for the proper optical prescription.				
OPH110	Medical Terminology/Abbreviations and Disease Processes for Ophthalmic Medical Assistant		This course will introduce the student to understanding the signs and symptoms of specific eye diseases, as well as how said disease affects the visual system. Systemic diseases with ocular manifestations will be discussed. The students will discuss and document by writing essays on the causes of specific diseases and the procedures used to diagnose and treat these diseases. The students will begin practicing medical terminology and acceptable abbreviations specific to the field of ophthalmology with an outcome of the ability to spell, define, and use ophthalmic terminology and abbreviations. The student will learn, demonstrate and record vital signs.	Prerequisites: OPH101, or with Program Manager approval, and current health and safety requirements.		CLK	42
OPH112	Clinical Theory and Skills		This course will explain the principles of optics and refractive states of the eye. Reading eyeglasses and measuring the patient for the proper eyeglass prescription will be demonstrated. The importance of	Prerequisites: OPH110 or with Program Manager approval, and current health and safety requirements.		CLK	177

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			ophthalmic pharmacology will be discussed and students will learn how the medications are used in the ophthalmology practice. Students will learn how to properly write a prescription for eye medications. Demonstration of proper eye drop instillation will be given. The importance of current microorganisms and infection control will be discussed in detail. The students will begin performing comprehensive medical eye examination. Ocular motility and other adjunctive testing in ophthalmology will be demonstrated.				
OPH114	Basic Skills and Ocular Assessment		This course will develop and refine the knowledge and skills necessary to assist the ophthalmologist in completion of the findings, assessment, and plan needed in a comprehensive ophthalmic medical evaluation for each patient. Community eye health and the importance of low vision will be discussed. The student ophthalmic assistant will perform and demonstrate comprehensive examinations and be required to pass skill evaluation testing.	Prerequisites: OPH112 or with Program Manager approval, and current health and safety requirements.		CLK	183
OPH150	Certified Ophthalmic Assistant (COA) Certification Prep		This is a refresher course that will help prepare students for the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO) for Certified Ophthalmic Assistant (COA) Exam. Students	Prerequisites: Ophthalmic Assistant Certification from the Joint Commission on Allied Health Personnel in		CLK	24

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			will feel more comfortable and more efficient with this exam.	Ophthalmology (JCAHPO).			
OPH190	Ophthalmic Assisting Externship		This course will give students hands-on experience with patients, staff, and other ophthalmic professionals while using their skills and techniques they obtain from lecture and lab courses. Students are assigned to an approved partnership site for one hundred and twenty (120) hours of externship. This will prepare the student for employment as an ophthalmic medical assistant.	Prerequisites: 1. OPH114 or with Program Manager approval. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check Policy. 2. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 3. Complete and submit the Allied Health Student Health and Safety Documentation Checklist, with included documentation 4. Students are responsible to meet the	Externship hours are site specific and may require attendance any day of the week, including during unscheduled days and times.	CLK	120

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				requirements of the background check, fingerprint clearance card, and health and safety documentatio n.			
OPT105	Introduction to Precision Optics		A historical overview of precision optics and scientific development. Covers optics application and the manufacturing process including machinery, tools, and systems. Examines fundamental principles, characteristics and design of optical components including geometrical optics, wave optics, metrology, fiber optics, photonics, aberration theory, optical phenomena, and optical illusions. Professional career paths in the optics industry also explored.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
OPT107	Precision Optics and Mathematical Concepts		Precision optics and mathematical concepts. Covers basic algebraic operations, problem solving involving metric measurement, gears, pulleys, simple mechanism problems. Areas and volume calculations of geometric figures. Essentials of trigonometry for solving right and oblique triangles. Addresses geometrical optics (reflection, diffraction, imaging, thin lens formula, lens maker's equation), wave optics (interference, diffraction, polarization), and the basic principles and practical applications of lasers. Covers optical	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			handling and positioning, light sources, laser classifications and safety.				
OPT112	Optical Elements and Ray Optics		Overview of terminology and techniques in the use of analytical and laboratory methods for planning, executing, and evaluating arrangements using components such as mirrors, prisms, thin and thick lenses, diffusers, stops, reticles, and various types of light sources. Reflection, refraction, dispersion, image formation, and aberrations studied, with emphasis on the ray concept of light.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
OPT115	Optical Fabrication and Metrology		A study of optical materials, processes, and measurement techniques employed in the manufacture of modern optical components. Covers steps in planning, tooling, fabricating, finishing, testing, coating, and assembly of precision optical elements.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
OPT215	Advanced Optical Fabrication and Metrology		Study of advanced processes, tools, and Computerized Numerical Control (CNC) technology shaping the methodology in manufacturing precision optical components. Emphasis in CNC grinding and polishing, tolerancing, and metrology of precision optical lenses.	Prerequisites: A grade of C or better in OPT115.		Occ	L+L 3.0 4.0 4.0
OPT225	Optical Systems		Application of optical fabrication techniques covering assembly of multiple optical elements into cemented and mechanically mounted lens systems, in addition to training in precision cleaning and inspection	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of optical surfaces. Also covers advanced metrology skills such as interferometry of transmitted beams and measurement of the optical transfer function.				
OSH101	Introduction to Occupational Safety, Health, and Environmental Technology		Overview of occupational safety, health, and environmental regulations and technology. Overview of the regulatory framework related to safety and environmental program management. Career opportunities and their relationship to business management.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
OSH102	Introduction to Industrial Hygiene		Overview of environmental hazardous materials technology. History of pollution leading to current legislation. Environmental effects of pollution. Overview of the regulatory framework. Career opportunities in handling and management of hazardous substances	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
OSH105	Construction Safety		Occupational Safety and Health Act. Common causes for accidents and fatalities in construction. Abatement techniques for construction specific hazards. Use of personal protection and lifesaving equipment. Specific types of health hazards related to the construction industry. Proper methods for handling hazardous materials	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
OSH105AA	Construction Safety		Occupational Safety and Health Act. Common causes for accidents and fatalities in construction. Abatement techniques for construction specific hazards. Use of personal protection and lifesaving	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			equipment. Specific types of health hazards related to the construction industry. Proper methods for handling hazardous materials.				
OSH106	Industrial Safety	GTC106 MIT106	Safety, health management, and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of safety and health hazards accident prevention, management responsibilities, and OSHA 10 certification.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
OSH106AC	Industrial Safety		Safety, health management and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, emergency preparedness, safety signs and color codes, recognition of safety and health hazards accident prevention, and management's responsibilities.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
OSH107	Occupational Safety Principles and Practice		Application of safety and health regulations and best practices. Hazard identification and accident investigation techniques. Major construction hazards and controls. Application of fire protection standards.	Prerequisites: A grade of C or better in OSH106AC or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
OSH189	Professional Leadership		Personal and professional leadership	Prerequisites: A grade of C	OSH189 may be	Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Development for Occupational Safety and Health		development related to Occupational Health and Safety (OSH) through active participation in peer-to-peer and professional mentoring. Exposure to industry technical meetings, technical tours, seminars, college discipline specific campus club, scholarship awareness, career fairs, and other similar events. Supplemented by readings, and pre-and post-activity discussion and critique. Varied content due to variety of personal and professional development available.	or better in HMT/OSH10 1 and GTC/MIT/OS H106 and a student member of the American Society of Safety Engineers.	repeated for a total of three (3) credit hours.		
OSH189AA	Professional Leadership Development for Occupational Safety and Health I		Personal and professional leadership development related to Occupational Safety and Health (OSH) through active participation in professional mentoring. Exposure to industry technical meetings, technical tours, college discipline specific campus club, scholarship awareness, and other similar events. Supplemented by readings, and pre- and post-activity discussion and critique. Varied content due to variety of personal and professional development available.	Prerequisites: A grade of C or better in OSH106AC.		Occ	L+L 1.0 2.0 0.0
OSH203	Health and Safety Program Management		Introduction to safety program theory and principles needed to develop, manage, implement and evaluate a safety and health program. Systems safety and applied psychology theories that enhance safety program management. Hazard	Prerequisites: A grade of C or better in OSH106AC or permission of Instructor.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			identification methods and controls, and application of these principles to case studies.				
OSH204	Health and Safety Program Management II		Current and emerging topics in safety and health program management. Exploration of current topics through emerging regulatory and/or consensus standards organizations. Case study investigation and analysis with applications to safety and health management. Introduction to new and evolving online training courses, seminars, video and documents. Adult leaning and instructional theory.	Prerequisites: A grade of C or better in OSH107 and OSH203, or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
OSH206	Risk Management and Loss Control		Statistical and cost analysis, report writing, and injury prevention related to loss control. Prevention programs designed to minimize or eliminate property and personnel loss or injury	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
OSH211	Industrial Safety Management Systems and Performance Indicators		Establishment of a safety management system meeting safety management system standards, concentrating on reactive and proactive approaches for safety department functions. Specific content includes development of safety duties, establishment of performance metrics, investigational accuracy and self-assessment.	Prerequisites: A grade of C or better in OSH203.		Occ	LEC 3.0 3.0 3.0
OSH218	Ergonomics		Analysis and evaluation of ergonomics risk factors for occupational tasks. Application of theories, methods, and techniques used in work design and systems. Methodological problems in human information	Prerequisites: A grade of C or better in OSH107 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			processing, human control functions, human-machine interface, work design and process evaluation.				
OSH220	Safety and Emergency Management		Assessment of emergency management systems for occupational safety program development. Planning and implementation of the four phases of emergency management: mitigation, preparedness, response, and recovery. Analysis of all hazards preparedness and response in emergency situations resulting from natural and technological hazards. Planning and budgeting for resources and staffing.	Prerequisites: A grade of C or better in OSH105AA or OSH106AC.		Occ	LEC 3.0 3.0 3.0
OSH240	Fire Protection Systems	FAC240	Building occupant safety requirements including industry standards, regulations, building codes, fire codes and life safety codes. Fundamentals of fire protection system operation, inspection and maintenance. Principles of life safety systems including fire door and walls, smoke control systems, and exit components.	Prerequisites: A grade of C or better in OSH106AC.		Occ	LEC 3.0 3.0 3.0
OSH270AA	Occupational Safety and Health Internship		Occupational Safety and Health (OSH) work experience in business, industry or government. Eighty (80) hours of designated work experience.	Prerequisites: A grade of C or better in HMT/OSH10 1 and OSH106AC or permission of Instructor.	OSH270AA may not be repeated for credit.	Occ	LAB 1.0 6.0 0.0
OSH270AB	Occupational Safety and Health Internship		Occupational Safety and Health (OSH) work experience in business, industry or government. One hundred and sixty (160) hours of designated work experience.	Prerequisites: A grade of C or better in HMT/OSH10 1 and OSH106AC.	OSH270AB may not be repeated for credit.	Occ	LAB 2.0 12.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
OSH270AC	Occupational Safety and Health Internship		Occupational Safety and Health (OSH) work experience in business, industry or government. Two hundred and forty (240) hours of designated work experience.	Prerequisites: A grade of C or better in HMT/OSH101 and OSH106AC.	OSH270AC may not be repeated for credit.	Occ	LAB 3.0 18.0 0.0
OSH290AC	Case Study and Research Project		Completion of a selected safety project in policy and procedure development or training program curriculum design in actual or simulated work setting. Combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students	Prerequisites: Permission of Instructor.		Occ	LAB 3.0 3.0 3.0
OSH298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
OSH298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
OSH298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
OTA100	Introduction to Occupational Therapy Assistant Profession		History, theory and philosophy of occupational therapy and occupational therapy assistant (OTA) professions. Topics include practice contexts, ethics, and scope of practice. Emphasis on developing professional behavior skills expected of an entry-level occupational therapy assistant.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
OTA102	Psychosocial Health and Occupation		Analysis of impact of psychosocial health on occupation throughout the lifespan. Focus on occupational therapy (OT) assessments and screening procedures for process skills, social interaction skills, and performance patterns. Theoretical models for group occupational therapy assistant (OTA) interventions and	Prerequisites: Admission to the Occupational Therapy Assistant program, and a grade of C or better in (OTA100 and PSY101). Corequisites: PSY266.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development of therapeutic client relationships.				
OTA105	Fieldwork: Psychosocial		Introductory-level clinical fieldwork experience for the occupational therapy assistant (OTA). Emphasis on observational skills and basic interactional skill in a mental health clinical setting with a culturally diverse client population. Focus on developing professional behavior, professional communication, and clinical reasoning in psychosocial context. Opportunities to apply group theory and therapeutic use of self.	Prerequisites: Admission to Occupational Therapy Assistant program. Corequisites: OTA102.		Occ	LAB 0.5 3.0 0.0
OTA107	Fundamentals of Occupational Therapy		Discussion of Occupational Therapy Practice Framework (OTPF), analysis of occupational performance and analysis of activities. Role of occupational therapy assistant (OTA) from referral to discharge. OTA interventions, documentation requirements, and terminology. Emphasis placed on therapeutic use of self and development of clinical reasoning skills.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA100.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
OTA117	Physical Health and Occupations		Impact of physical health on occupation throughout the lifespan. Focus on observing, identifying, measuring, and assessing motor and sensory client factors.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in BIO202.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 6.0 6.0
OTA157	Occupational Therapy Assistant in Physical Rehabilitation		Theories and practice models for occupational therapy for clients with physical disabilities. Topics include pathology	Prerequisites: Admission to the Occupational Therapy		Occ	LEC 3.0 1.0 1.0 LAB 0.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and therapeutic interventions. Emphasis on clinical reasoning, locating resources, daily treatment planning, task and environmental modifications, activity grading, client education and documentation.	Assistant program.			
OTA201	Assistive Technology		Specialized assistive technology items: car modifications, power wheel chair options, adaptive toys and switches, seating systems, orthotics and prosthetics, and apps for therapeutic use. Emphasis on identifying need, referral process, and funding sources.	Prerequisites: A grade of C or better in OTA157.		Occ	LEC 2.0 2.0 2.0
OTA205	Fieldwork: Geriatric		Introductory level clinical fieldwork experience with a geriatric population. Application of learning with focus on exhibiting professional behavior, professional communication, clinical observation skills, and implementation of selected geriatric treatment strategies and modifications.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA157. Corequisites: OTA207.		Occ	LAB 0.5 2.5 0.0
OTA207	Occupational Therapy Assistant in Geriatrics		Impact of aging on occupational performance. Physical, sensory, and cognitive changes associated with aging. Social, psychological, and cultural impact on aging. Common and emerging contexts of service provision. Focus on synthesizing learning and implementing treatment techniques with aging population.	Prerequisites: A grade of C or better in OTA157.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
OTA215	Fieldwork: Pediatric I		Introductory-level fieldwork experience in a pediatric context. Emphasis on demonstrating professional behavior, professional	Prerequisites: Admission to the Occupational Therapy Assistant program and		Occ	LAB 0.5 2.5 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			communication, clinical observation skills, selecting age-appropriate therapeutic activities, and applying therapeutic use of self with a culturally diverse pediatric client population.	a grade of C or better in OTA157. Corequisites: OTA217.			
OTA216	Occupational Therapy Assisting Pediatrics I		Distinguishes between typical and atypical pediatric development. Common pediatric health conditions of infants, children, and adolescents. Occupational therapy practice models, theories, and delivery contexts found in pediatrics.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA102 and OTA117.		Occ	LEC 2.0 2.0 2.0
OTA217	Occupational Therapy Assisting Pediatrics II		Distinguishes between typical and atypical pediatric development. Common pediatric health conditions of infants, children, and adolescents. Occupational therapy practice models, theories, and delivery contexts found in pediatrics. Focus on synthesizing prior learning and specific pediatric treatment activities to develop pediatric treatment plans.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA102, OTA117, and OTA216.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
OTA234	Occupational Therapy Assistant Professional Standards		Preparation for transition into level 2 fieldwork. Focus on supervisory structures, professional ethics, legislative issues, licensure requirements, evidence based practice, and reimbursement systems. Topics include program planning, marketing, quality assurance. Assessment of personal and professional competencies during resume and portfolio development.	Prerequisites: A grade of C or better in OTA157.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
OTA255	Fieldwork: Adult		Clinical experience under the direct supervision of experienced occupational therapists (OTs) or occupational therapy assistants (OTAs) in a context primarily serving adult clients. Emphasis is placed on clinical preparation for entry-level practice as an OTA.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in (OTA207, OTA217, and OTA234). Corequisites: OTA284.	Students should have completed all other OTA coursework within the last 18 months.	Occ	LAB 4.0 21.0 0.0
OTA265	Fieldwork: Pediatric II		Secondary clinical experience under the direct supervision of experienced occupational therapists (OTs) or occupational therapy assistants (OTAs) in a context primarily serving pediatric clients. Emphasis is placed on clinical preparation for entry-level practice as an OTA.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in (OTA207, OTA217, and OTA234).	Students should have completed all other OTA coursework within the last 18 months.	Occ	LAB 4.0 21.0 0.0
OTA284	Occupational Therapy Assistant Professional Transition		Integration of clinical experiences during level 2 fieldwork with theoretical models and didactic learning. Preparation for licensure and National Board for Certification in Occupational Therapy (NBCOT) examination. Focus on self-assessment, study skills, comprehensive content review, and fieldwork review.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in (OTA207, OTA217, and OTA234).	Students should have completed all other OTA coursework within the last 18 months.	Occ	LEC 2.0 2.0 2.0
PAD100	21st Century Public Policy and Service		Introduction to topics pertaining to public policy and public service in the 21st century. Includes formation, implementation, and evaluation procedures for public policy, as well as roles and agendas of policy makers and public administrators. Also covers careers in public service/administration	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and an evaluation of essential skills necessary for a career in public service.				
PAD107	Public Finance Administration		Basic overview of public finance system for state and local government. Includes budgeting processes, revenue and funding sources involving taxes and revenue forecasting. Also covers capital planning, debt management, performance measurement, financial statements, and auditing.	Prerequisites: A grade of C or better in CIS114DE.		Occ	LEC 3.0 3.0 3.0
PAD122	Public Sector Human Resources Management		Overview of human resources management in the public sector. Covers planning, staffing, training, compensating, and appraising employees in labor management relationships.	Prerequisites: A grade of C or better in CIS114DE.		Occ	LEC 3.0 3.0 3.0
PAD170	Public Sector Organizational Behavior		Basic principles of public-sector management from an organizational behavior perspective. Levels of organizational behavior: the individual, the group and the organization system emphasized	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PAD200	Public Affairs Economics		Introduction to the use of macroeconomic and microeconomic principles concerning public affairs and social issues. Includes the role of economics in societal development and public policies in addition to the effects of unemployment and inflation. Also covers measurement of, causes for and societal responses to poverty.	Prerequisites: A grade of C or better in PAD100 or permission of Instructor.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Occ	LEC 3.0 3.0 3.0
PAD210	Fundamentals of Real Property Appraisal		Procedures and techniques for estimating market value of vacant and improved properties. Includes appraisal	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			theory, assessment procedures, and appraisal/assessment techniques in addition to land description and land valuation. Also covers definitions and structure of cost and various types of cost estimates as well as procedures for determining depreciation				
PAD212	Valuation Concepts and Cost Appraisal Methods		Functions of the assessor and appraiser. Covers the nature and principles of value, assessment, as well as appraisal processes. Emphasis on property owner rights and limitations including an overview of the Arizona Property Tax System. Also covers use of a construction cost system.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0
PAD214	Land Valuation		Analysis of land valuation procedures. Covers maps, land value factors, and ownership as well as systems of land identification. Includes site data units of comparison and market influences in addition to Arizona statutes and precedents related to special land valuation.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0
PAD216	Basic Ad Valorem Appraisal Concepts		Basic assessment and valuation practices for mixed-use properties, partially complete structures, and salvage properties. Also covers the construction cost system, cost components, and market adjustments as well as methods for measuring depreciation. Also includes market value and ratio studies.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0
PAD218	Personal Property Valuation		Overview of personal property valuation in the state of Arizona. Includes procedures and	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			forms for the valuation process, as well as mobile home classification and affixture requirement. Also covers year/life tables and depreciation calculations.				
PAD220	Income Approach to Valuation		Principles for the income approach to valuation. Includes an overview of real estate investment and finance as well as development of net operating income estimates. Also covers contemporary and historical capitalization methods and procedures for developing capitalization rates	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0
PAD222	Intermediate Ad Valorem Appraisal Concepts		Procedures for Ad Valorem Appraisal. Covers sales ratio studies, appraisal level, and uniformity as well as mixed-use assessment ratios. Also includes Centrally Valued Properties, Direct Sales Comparison, and Income Value calculations.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0
PAD224	Hearing Procedures		Preparation for hearing procedures. Emphasis on presentation techniques, documentation, and organization of Assessor's records as well as property classification and confirmation. Also covers analysis of and response to appellant arguments and completion of the administrative appeal process.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0
PAR101	Introduction to the Paralegal Profession		Comprehensive introduction into the legal profession with a focus on the paralegal's role. Introduction into legal terminology, basic legal principles, and the	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			parties involved in the legal system.				
PAR102	Paralegal Research, Analysis, and Writing I		Introduction into legal research, analysis and writing. Covers legal research binding, persuasive authority, and use of legal citation. Includes components and use of case law and briefs in addition to use of secondary sources and digests. Also covers electronic legal research and research plans.	Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by assessment).		Occ	LEC 3.0 3.0 3.0
PAR103	Paralegal Research, Analysis, and Writing II		Advanced legal writing and research. Analysis and application of the writing process to produce well-written documents commonly used in the practice of law. Covers various types of legal writing, including memorandum of law, persuasive writing, and legal correspondence. The use of proper grammar, punctuation, and spelling in the construction of sentences and the development of paragraphs.	Prerequisites: A grade of C or better in PAR102.		Occ	LEC 3.0 3.0 3.0
PAR104	Ethics for the Paralegal		Paralegal rules of professional responsibility and ethical requirements. Includes regulation of the profession as well as unauthorized practice of law and confidentiality. Also covers conflict of interest, competence, and negligence.	Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by assessment) and PAR102.		Occ	LEC 3.0 3.0 3.0
PAR106	Legal Foundations for Paralegals		Legal principles of tort, contract, and criminal law. Includes roles and responsibilities of court systems, the legal community, and the paralegal. Also covers procedures for preparing cases for trial,	Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			adjudication, and post-trial.	assessment) and PAR103.			
PAR112	Civil Litigation I		Responsibilities of the paralegal in the civil litigation process. Includes review of the American court system and techniques for case investigation. Also covers case management and evidence procedures as well as settlements and pleadings.	Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by assessment).		Occ	LEC 3.0 3.0 3.0
PAR114	Civil Litigation II		Civil litigation responsibilities of the paralegal in the areas of discovery, depositions, pretrial, and post-trial procedures. Includes preparation of clients, witnesses, and exhibits for the courtroom. Also covers responsibilities of the paralegal in the evidentiary phase of trial, post-trial, and the appeals process in addition to collection and enforcement of judgments.	Prerequisites: A grade of C or better in PAR112.		Occ	LEC 3.0 3.0 3.0
PAR206	Paralegal Business Law		Overview of business law for the paralegal. Includes a review of basic contract formation and enforcement. Also covers property and ownership characteristics and operations in addition to a comparison of various types of business organizations.	Prerequisites: A grade of C or better in PAR106 and PAR114.		Occ	LEC 3.0 3.0 3.0
PAR208	Introduction to Tort Law		Introduction to tort law and the responsibilities of the paralegal. Includes elements of types of various types of torts, negligence and defenses in addition to classification of and legal issues pertaining to damages. Also covers insurance and its application to tort law as well as procedures for	Prerequisites: A grade of C or better in PAR106 and PAR114.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			records evaluation and calculation of net settlements.				
PAR224	Law Office Technology for the Paralegal		Technology resources and procedures for the law office. Includes types of hardware and software in addition to office security. Also covers paperless office and electronic research procedures as well as use of trial presentation software.	Prerequisites: A grade of C or better in PAR104 or Corequisites: PAR104.		Occ	LEC 3.0 3.0 3.0
PAR230	Family Law for the Paralegal		Paralegal responsibilities in the area of family law. Includes procedures for the initial client interview as well as drafting of applicable documents in dissolution, post-decree, and custody proceedings. Also covers discovery tools and procedures in addition to methods for valuation and division of assets	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0
PAR232	Bankruptcy Law for the Paralegal		Paralegal responsibilities in the area of bankruptcy law. Emphasis on chapters 7, 11, and 13 of the bankruptcy code of Title 11 of the United States Code. Also covers bankruptcy documentation, automatic stay, dischargeable and nondischargeable debts, and bankruptcy case dismissals, conversions, and transfers	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0
PAR233	Real Estate Law for the Paralegal		Paralegal responsibilities in the area of real estate law. Covers real estate transactions and agreements of sale as well as title and deed procedures. Also includes procedures for completing title abstractions and legal documentation pertinent to arbitration and foreclosure. The role of	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the paralegal in completing real estate client interviews also covered				
PAR234	Administrative Law for the Paralegal		Paralegal responsibilities in the area of administrative law. Overview of types and sources of administrative law. Includes accountability, agency discretion and due process in addition to delegation and rule-making. Also covers agency investigations and adjudication procedures.	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0
PAR236	Estate Law for the Paralegal		Paralegal responsibilities in the area of estate law. Includes estate planning and administration. Covers procedures for preparing wills and trusts in addition to handling probate issues	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0
PAR237	Paralegals and Environmental Law		Overview of role and key responsibilities of a paralegal supporting environmental law concerns. Covers the essentials of environmental law, including types of organizations and agencies. Also covered, process of environmental laws and rulemaking with an emphasis on major environmental acts.	Prerequisites: A grade of C or better in PAR106 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
PAR238	Paralegals and Immigration Law		Overview of role and key responsibilities of a paralegal working with immigration law cases. Includes immigration laws and essentials of federal regulations. Covers process and procedures for citizenship and naturalization including, establishing temporary and permanent legal citizenship and types of visas. Also includes	Prerequisites: A grade of C or better in PAR106 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			process for application and appeals.				
PAR239	Legal Investigation		Overview of role and key responsibilities of a legal investigator. Covers the process for conducting an interview including discovery methods and research techniques. Also covers procedures for documenting and writing accurate statements and preparing legal evidence and exhibits for trial.	Prerequisites: A grade of C or better in PAR106 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
PAR240	Introduction to eDiscovery for the Paralegal		Overview of electronic discovery and the impact of electronic data on the legal field. Includes a review of the development of technology assisted review (TAR), preservation procedures, and collection methods for electronical stored information (ESI). Also covers changes in civil rules of procedure and ethical duties for legal professionals.	Prerequisites: A grade of C or better in PAR106.		Occ	LEC 3.0 3.0 3.0
PAR260	Legal Career Preparation		Overview of the essential skills necessary for the paralegal student in the internship environment. Covers essential skills, self-evaluation and resources available to the paralegal.	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 1.0 1.0 1.0
PAR290AA	Internship for the Paralegal		Paralegal work experience in industry. Eighty (80) hours of designated work per credit	Prerequisites: Permission of Department or Division.	PAR290AA may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0
PAR290AB	Internship for the Paralegal		Paralegal work experience in industry. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division. Corequisites: PAR260.	PAR290AB may be repeated for a total of four (4) credit hours.	Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PED101	Physical Activities: Basic		Individual, dual, or team sports activities at the basic level.	Prerequisites: None.	PED101 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101AD	Aerobic Dance		A cardiovascular workout through dance.	Prerequisites: None.	PED101AD may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101AK	Aikido		Covers the fundamentals of Aikido including rules, moves, and traditional discipline of the sport.	Prerequisites: None.	PED101AK may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101AP	Adapted PE		Fitness for persons with disabilities.	Prerequisites: None.	PED101AP may be repeated for credit. May need medical clearance. May need medical clearance.	Occ	L+L 1.0 2.0 2.0
PED101AQ	Aquatic Fitness		This aquatic fitness class offers knowledge and skills to keep fit for life. It teaches safe performance of movement and exercise in a progressive approach and offers an opportunity to improve and/or maintain a high level of fitness through application of aerobic training principles in an aquatic environment. Swimming skills are not required. This class is designed for all fitness levels. Students are encouraged to understand their own limitations and work within their bounds.	Prerequisites: None.	PED101AQ may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101BA	Baseball		Basic skills and game strategy of baseball. Class emphasis on competition and drills.	Prerequisites: None.	PED101BA may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101BB	Basketball		Basic skills and game strategy of basketball. Class emphasis on competition and drills.	Prerequisites: None.	PED101BB may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101BC	Boot Camp		Vigorous physical and mental conditioning incorporating cardiovascular, core	Prerequisites: None.	PED101BC may be repeated for credit.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety.				
PED101BD	Ballroom Dancing		Basic level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate.	Prerequisites: None.	PED101BD may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101BE	Belly Dance		Practice and demonstration of basic belly dance skills and movements. Basic posture and muscularity, primary upper and lower body isolations, footwork, simple combination movements. Rhythms broken down, and at least one prop demonstrated. Basic routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire.	Prerequisites: None.	PED101BE may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101BL	Ballet		Basics of ballet incorporating steps, poses, and graceful movements including leaps and spins.	Prerequisites: None.	PED101BL may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101BP	Backpacking		Covers basic skills and techniques of backpacking and the application of these to wilderness travel.	Prerequisites: None.	PED101BP may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101BS	Body Sculpting		Stretch and strengthen. Emphasizes increasing fitness, muscle tone, and body flexibility. Great for reducing stress.	Prerequisites: None.	PED101BS may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101BW	Bowling		Fundamental skills of bowling, including scoring and competition.	Prerequisites: None.	PED101BW may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101CD	Country Dance		Popular country dances including Arizona Two Step, Progressive Two Step and other current popular dances. Partners rotate.	Prerequisites: None.	PED101CD may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101CP	Camping		Learn the skills of camping in an outdoor setting. Length of overnight stay varies.	Prerequisites: None.	PED101CP may be repeated for credit.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PED101CY	Cycling - Indoor		Basic skills for bike set up and proper body mechanics. Increase leg strength, lung capacity, and metabolism.	Prerequisites: None.	PED101CY may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101DF	Self Defense		Basic self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Modified for all skill levels. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence.	Prerequisites: None.	PED101DF may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101DS	Dance Sampler		Variety of the most basic and popular social dances including Merengue, Waltz, Salsa, Swing, Foxtrot and others. Partners rotate.	Prerequisites: None.	PED101DS may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101FB	Football		Basic skills and game strategy of football. Class emphasis on competition and drills.	Prerequisites: None.	PED101FB may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101FE	Fencing		Introduction to the sport of fencing. Instruction and practice in proper body mechanics with the use of a foil, saber, and epee.	Prerequisites: None.	PED101FE may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101FL	Fitness for Life		Learn the basics of designing and implementing a personalized fitness program to meet your needs in the areas of Cardiovascular Fitness, Weight Control, Muscular Strength and Flexibility.	Prerequisites: None.	PED101FL may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101FW	Fitness Walking		Development of safe and effective walking skills through proper exercises and use of equipment to enhance a walking program.	Prerequisites: None.	PED101FW may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101GF	Group Fitness/Aerobics		Group exercise incorporating a variety of equipment to increase respiration, heart rates, strength, and flexibility.	Prerequisites: None.	PED101GF may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101GO	Golf		Instruction and practice for all skill levels, beginning through advanced. Assistance on	Prerequisites: None.	PED101GO may be repeated for credit.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			shot making, club selection and etiquette on the course.		COMMON COMPETE NCY COURSE		
PED101HH	Hip Hop		Basic skills of hip hop with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies.	Prerequisites: None.	PED101HH may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101HK	Hiking		Develop safe and effective hiking skills. Essentials and requirements for safe hiking; proper hiking clothing and attire; impact of hiking on the environment.	Prerequisites: None.	PED101HK may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101JR	Jogging/Running		Introduction to jogging/running. Learn proper technique to decrease injury and increase training distance. All skill levels welcome.	Prerequisites: None.	PED101JR may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101JS	Japanese Swordmanship		Vigorous martial arts swordmanship training program utilizing historical principles that promotes the development of fitness, coordination, agility, balance, mindfulness/focus, and knowledge of strategy.	Prerequisites: None.	PED101JS may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101JU	Judo		Japanese martial art in which opponents use balance and body weight to throw, pin and lock.	Prerequisites: None.	PED101JU may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101JZ	Jazz		Learn various dance skills characterized by the use of improvisation and influenced by rhythms and techniques of Jazz music.	Prerequisites: None.	PED101JZ may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101KA	Karate		Training emphasizes fundamentals, traditional	Prerequisites: None.	PED101KA may be	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			form, and applied sparring that follows the theory of Karate.		repeated for credit. COMMON COMPETE NCY COURSE		
PED101KB	Kickboxing		Techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self-confidence. Jabs, kicks, and blocks will be used in this martial arts based workout.	Prerequisites: None.	PED101KB may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101KF	Kung Fu		Techniques of one of the most comprehensive martial arts in China.	Prerequisites: None.	PED101KF may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101LD	Latin Dancing		Spicy, energetic style of dance. Cha Cha, Merengue, Salsa, Rumba, and Bolero. Partners rotate.	Prerequisites: None.	PED101LD may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101LT	Lifeguard Training		Designed to provide the knowledge and skills for preventing, recognizing, and responding to aquatic emergencies. Practical skills in water rescue, CPR, and first aid.	Prerequisites: None.	It is highly recommend ed that PED101LT students demonstrat e the ability to tread water without the use of hands for one minute, swim 100 yards without stopping, and retrieve a weighted object at the bottom of the pool (minimum of 10 lbs). Students	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					must be 16 years or older to enroll in PED101LT. PED101LT may be repeated for credit.		
PED101MD	Modern Dance		Learn the skills and techniques to express yourself through dance. Practice and drills included.	Prerequisites: None.	PED101MD may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101PB	Pickleball		Basic skills and game strategy of pickleball. Class emphasis on competition and drills.	Prerequisites: None.	PED101PB may be repeated for four (4) credits. Repeats 4.0 4.0	Occ	L+L 1.0 2.0 2.0
PED101PC	Physical Conditioning		Exercise program with access to free weights, strength machines and cardio equipment.	Prerequisites: None.	PED101PC may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101PS	Pilates		Mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment.	Prerequisites: None.	PED101PS may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101QG	Qi Gong		Ancient Chinese Qi Gong breathing exercises for healing and opening channels of energy. Includes Power of Positive thought along with relaxation and meditation techniques.	Prerequisites: None.	PED101QG may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101RC	Rock Climbing		Beginning climbing skills including equipment, knots, anchoring, belaying, and climbing techniques in an indoor climbing gym. No previous experience	Prerequisites: None.	PED101RC may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			needed. Develop strength and confidence.				
PED101RQ	Racquetball		Basic skills and game strategy of racquetball. Class emphasis on competition and drills.	Prerequisites: None.	PED101RQ may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101RT	Resistance Training for Improved Sports Performance		Introduction to sport-specific resistance training programs to enhance athletic performance. Includes focus on advanced assessment and sport-related resistance training, including Olympic lifting with a qualified instructor.	Prerequisites: None.	PED101RT may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101SA	Salsa		Basic moves for the popular, hot Latin dance Salsa. Partners rotate.	Prerequisites: None.	PED101SA may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101SB	Softball		Basic skills and game strategy of softball. Class emphasis on competition and drills.	Prerequisites: None.	PED101SB may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101SD	Social Dance		Introduction to various dances encountered in a social setting. Partners rotate.	Prerequisites: None.	PED101SD may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101SK	Downhill Snow Skiing		Basics of downhill skiing. All skill levels welcome.	Prerequisites: None.	PED101SK may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101SM	Swimming		Designed to improve cardiovascular fitness, flexibility and muscular	Prerequisites: None.	PED101SM may be	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			endurance in an aquatic environment. Includes instruction in, practice with and individualized coaching on the basic swim strokes, breathing techniques and strategies to improve efficiency of movement in the water.		repeated for credit.		
PED101SO	Soccer		Basic skills and game strategy of soccer. Class emphasis on competition and drills.	Prerequisites: None.	PED101SO may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101SR	Stretch and Relaxation		A mat-based stretching class with guided meditation. Stretching increases flexibility and relieves stress, promoting an overall sense of well being.	Prerequisites: None.	PED101SR may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101ST	Strength Training		Introduction to techniques of basic weight training, concentrating on incorporating an exercise regimen for increased strength.	Prerequisites: None.	PED101ST may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101SU	SCUBA Diving		Introduction to the theory and practice of SCUBA diving. Course includes lectures, pool dives, open water dives, and SCUBA Certification.	Prerequisites: None.	PED101SU may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.5 2.5 2.5
PED101SW	Swing Dancing		Popular Swing dance moves and rhythms, including basic Lindy. All students will rotate.	Prerequisites: None.	PED101SW may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101TA	Tango		Beginning, basic footwork and body mechanics for Tango. Partners rotate.	Prerequisites: None.	PED101TA may be repeated for credit. COMMON COMPETE	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					NCY COURSE		
PED101TC	Tai Chi		Fundamentals of Tai Chi including moves, breathing and meditation.	Prerequisites: None.	PED101TC may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101TD	Tap Dance		Introduction to Tap a step dance performed with the use of shoes with metal tips making rhythmic sounds.	Prerequisites: None.	PED101TD may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101TE	Tennis		Basic skills and game strategy of tennis. Class emphasis on competition and drills.	Prerequisites: None.	PED101TE may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101TF	Track and Field		Instruction and practice in track and field events, running, throwing and jumping.	Prerequisites: None.	PED101TF may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101TK	Taekwondo		Fundamentals of Taekwondo including the moves, rules, and traditional discipline of the sport.	Prerequisites: None.	PED101TK may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101TT	Triathlon Training		Train for triathlons. Beginners to elite. Learn training techniques for triathlon competition: Swim, Bike, Run.	Prerequisites: None.	PED101TT may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101TX	Suspension Training		Suspension training using TRX or similar equipment. Designed to develop strength, balance, flexibility and core stability.	Prerequisites: None.	PED101TX may be repeated for credit.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Incorporates a variety of exercises using adjustable positions, stability levels and intensities. Suitable for all skill levels.				
PED101VB	Volleyball		Basic skills and game strategy of volleyball. Class emphasis on competition and drills.	Prerequisites: None.	PED101VB may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101WS	West Coast Swing		Basic patterns and rhythms of the classic dance style of West Coast Swing. Partners rotate.	Prerequisites: None.	PED101WS may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101W W	Weight Training for Women		Designed to introduce students of all fitness levels to the fundamentals of resistance training in a safe and supportive environment. Includes hands-on demonstrations of and practice using equipment such as machine weights, free weights, and/or Olympic lifts. Individual workout programs developed under instructor supervision and strategies to integrate resistance training into lifestyle considered.	Prerequisites: None.	PED101W W may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101YG	Gentle Yoga		Focuses on the use of such props as blankets, blocks, and chairs to modify traditional Yoga poses, enabling participation with moderate effort and without strain; suitable for all levels but especially for students needing a slower pace.	Prerequisites: None.	PED101YG may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101YH	Hatha Yoga		Combination of traditional and flow style yoga that utilizes	Prerequisites: None.	PED101YH may be	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			breathing, yoga poses, relaxation and meditation to create balance and inner peace. COMMON COMPETENCY COURSE		repeated for credit.		
PED101YI	Iyengar Yoga		Form of Hatha Yoga using various props such as belts, blocks, and straps used to focus on precise body alignment.	Prerequisites: None.	PED101YI may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101YK	Kundalini Yoga		Energetically guided Yoga focusing on psycho-spiritual growth with special consideration of the spine and endocrine system.	Prerequisites: None.	PED101YK may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101YO	Yoga		Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques.	Prerequisites: None.	PED101YO may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101YP	Power Yoga		Yoga postures performed in a dynamic series designed to gain strength, add flexibility, release toxins, This is a vigorous, athletic form of yoga.	Prerequisites: None.	PED101YP may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED101YR	Restorative Yoga		Gentle form of Yoga poses utilizing props to create fully supported postures; focuses on relaxation and involves non-rigorous physical activity, providing rest and recovery and promoting the restoration of tranquility; suitable for all levels.	Prerequisites: None.	PED101YR may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED101ZU	Zumba Fitness		Uses easy to follow dance movements and high energy music to enhance cardiovascular fitness and to promote self-esteem and	Prerequisites: None.	PED101ZU may be repeated for credit.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			confidence in physical movement. Provides an accepting and encouraging atmosphere for students of all levels to participate in a group fitness class.				
PED102	Physical Activities: Intermediate		Individual, dual, or team sports activities at the intermediate level.	Prerequisites: None. Prior experience recommended.	PED102 may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102BA	Baseball - Intermediate		To improve upon basic skills and game strategy of baseball at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102BA may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102BB	Basketball - Intermediate		To improve upon basic skills and game strategy of basketball at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102BB may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102BC	Boot Camp - Intermediate		Vigorous training at an intermediate level incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety.	Prerequisites: None. Prior experience recommended.	PED102BC may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102BD	Ballroom Dancing - Intermediate		Intermediate level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate.	Prerequisites: None. Prior experience recommended.	PED102BD may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102BE	Belly Dance - Intermediate		Practice and demonstration of basic belly dance skills and movements at the intermediate level. Posture and muscularity, primary upper and lower body isolations,	Prerequisites: None. Prior experience recommended.	PED102BE may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			footwork, intermediate level combination movements. Rhythms broken down, and at least two props demonstrated. Routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire.				
PED102BL	Ballet - Intermediate		Ballet steps, poses and graceful movements including leaps and spins at the intermediate level.	Prerequisites: None. Prior experience recommended.	PED102BL may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102CH	Cheerleaders - Intermediate		Intermediate skills of cheerleading with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies.	Prerequisites: None. Prior experience recommended.	PED102CH may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102DF	Self Defense - Intermediate		Intermediate self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence. Not recommended for beginners.	Prerequisites: None. Prior experience recommended.	PED102DF may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102FB	Football - Intermediate		Improve upon basic skills and game strategy of football at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102FB may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102FE	Fencing - Intermediate		Build upon the basic skills in the sport of fencing. Intermediate level instruction in the use of a foil, saber, and epee. Emphasis on skill practice and competition.	Prerequisites: None. Prior experience recommended.	PED102FE may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102FL	Fitness for Life - Intermediate		Intermediate level design and implementation of a	Prerequisites: None. Prior	PED102FL may be	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			personalized fitness program to increase your fitness level in the areas of Cardiovascular Fitness, Weight Control, Muscular Strength and Flexibility.	experience recommende d.	repeated for credit. COMMON COMPETE NCY COURSE		
PED102GO	Golf - Intermediate		Improving techniques of putting, chipping, the full swing, rules and scoring will be covered in this class.	Prerequisites: None. Prior experience recommende d.	PED102GO may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102HH	Hip Hop - Intermediate		Intermediate level dance instruction and practice in the skills of hip hop. Emphasis on performance including proper body mechanics, choreography, and behavioral competencies.	Prerequisites: None. Prior experience recommende d.	PED102HH may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102HK	Hiking - Intermediate		Improve your hiking skills on more challenging terrain. Includes Physical training.	Prerequisites: None. Prior experience recommende d.	PED102HK may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102JR	Jogging/Running - Intermediate		Intermediate training for jogging/running. Learn proper technique to decrease injury and increase training distance. Not recommended for beginners.	Prerequisites: None. Prior experience recommende d.	PED102JR may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102JS	Japanese Swordmanship - Intermediate		Intermediate level of vigorous martial arts swordmanship training program utilizing historical principles that promotes the development of fitness, coordination, agility, balance, mindfulness/focus, and knowledge of strategy.	Prerequisites: None.	PED102JS may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED102JZ	Jazz - Intermediate		Intermediate dance skills for dancing Jazz. Not recommended for beginners.	Prerequisites: None. Prior experience recommende d.	PED102JZ may be repeated for credit. COMMON	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					COMPETE NCY COURSE		
PED102KA	Karate - Intermediate		Applied technique and theory of Karate at the intermediate level.	Prerequisites: None. Prior experience recommended.	PED102KA may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102KB	Kickboxing - Intermediate		Intermediate level kickboxing techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self-confidence. Not recommended for the beginner.	Prerequisites: None. Prior experience recommended.	PED102KB may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102LD	Latin Dancing - Intermediate		Incorporate intermediate dance moves while performing Latin Dance.	Prerequisites: None. Prior experience recommended.	PED102LD may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102PC	Physical Conditioning - Intermediate		Intermediate level exercise program with access to free weights, strength machines and cardio equipment. Not recommended for the beginner.	Prerequisites: None. Prior experience recommended.	PED102PC may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102PS	Pilates - Intermediate		Intermediate level Mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment.	Prerequisites: None. Prior experience recommended.	PED102PS may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102RC	Rock Climbing - Intermediate		Improve upon basic skills of climbing including, knots, anchoring, belaying, and climbing techniques in an indoor climbing gym. Develop strength and confidence.	Prerequisites: None. Prior experience recommended.	PED102RC may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102RT	Resistance Training for Improved Sports		Intermediate level of sport specific programs	Prerequisites: None. Prior	PED102RT may be	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Performance - Intermediate		designed to enhance athletic performance. Includes a focus on advanced assessment and sport related resistance training including Olympic lifting and plyometrics with a qualified instructor.	experience recommended.	repeated for credit.		
PED102SA	Salsa - Intermediate		Learn the intermediate dance moves for Salsa. Not recommended for the beginning Salsa dancer.	Prerequisites: None. Prior experience recommended.	PED102SA may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102SB	Softball - Intermediate		Improve upon basic skills and game strategy of softball at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102SB may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102SO	Soccer - Intermediate		To improve upon basic skills and game strategy of soccer at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102SO may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102ST	Strength Training - Intermediate		Intermediate techniques of strength training, concentrating on incorporating an exercise regimen for increased strength and endurance. Not recommended for the beginning weight lifter.	Prerequisites: None. Prior experience recommended.	PED102ST may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102SW	Swing Dancing - Intermediate		Learn the intermediate dance moves for Swing Dancing.	Prerequisites: None. Prior experience recommended.	PED102SW may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102TC	Tai Chi - Intermediate		Intermediate level techniques of Tai Chi including moves, breathing and meditation.	Prerequisites: None. Prior experience recommended.	PED102TC may be repeated for credit. COMMON COMPETE	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					NCY COURSE		
PED102TD	Tap Dance-Intermediate		Tap dance steps at the intermediate level. Some experience welcomed	Prerequisites: None. Prior experience recommended.		Occ	L+L 1.0 2.0 2.0
PED102TE	Tennis - Intermediate		Improve upon basic skills and game strategy of tennis at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102TE may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102TF	Track and Field - Intermediate		To improve upon basic track and field event skills at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102TF may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102TK	Taekwondo - Intermediate		Intermediate level training in Taekwondo.	Prerequisites: None. Prior experience recommended.	PED102TK may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102TT	Triathlon Training - Intermediate		Intermediate level training for triathletes. Improve your training techniques for triathlon competition: Swim, Bike, Run.	Prerequisites: None. Prior experience recommended.	PED102TT may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102VB	Volleyball - Intermediate		Improve upon basic skills and game strategy of volleyball at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102VB may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102W W	Weight Training for Women - Intermediate		Designed to advance the resistance training routines of more experienced students in a progressive fashion. Includes principles of and practice with the safe use of free and machine weights and	Prerequisites: None. Prior experience recommended.	PED102W W may be repeated for credit.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Olympic lifts as well as strategies for effective workouts. Customized training programs devised with instructor guidance. Consideration of resistance training as part of a comprehensive health, fitness and wellness program included.				
PED102YO	Yoga - Intermediate		Yoga for the experienced practitioner.	Prerequisites: None. Prior experience recommended.	PED102YO may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED102YP	Power Yoga - Intermediate		Intermediate level Yoga postures performed in a dynamic series designed to gain strength, add flexibility, release toxins, This is a vigorous, athletic form of yoga.	Prerequisites: None. Prior experience recommended.	PED102YP may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED103	Physical Activities: Basic		Individual, dual, or team sports activities at the basic level.	Prerequisites: None.	PED103 may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103AQ	Aquatic Fitness		This aquatic fitness class offers knowledge and skills to keep fit for life. It teaches safe performance of movement and exercise in a progressive approach and offers an opportunity to improve and/or maintain a high level of fitness through application of aerobic training principles in an aquatic environment. Swimming skills are not required. This class is designed for all fitness levels. Students are encouraged to understand their own	Prerequisites: None.	PED103AQ may be repeated for credit.	Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			limitations and work within their bounds.				
PED103BC	Boot Camp		Vigorous physical and mental conditioning incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety.	Prerequisites: None.	PED103BC may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103BD	Ballroom Dancing		Basic level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate.	Prerequisites: None.	PED103BD may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103BE	Belly Dance		Practice and demonstration of basic belly dance skills and movements. Basic posture and muscularity, primary upper and lower body isolations, footwork, simple combination movements. Rhythms broken down, and at least one prop demonstrated. Basic routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire.	Prerequisites: None.	PED103BE may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103BS	Body Sculpting		Stretch and strengthen. Emphasizes increasing fitness, muscle tone, and body flexibility. Great for reducing stress.	Prerequisites: None.	PED103BS may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103CY	Cycling - Indoor		Basic skills for bike set up and proper body mechanics. Increase leg strength, lung capacity, and metabolism.	Prerequisites: None.	PED103CY may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103DF	Self Defense		Basic self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Modified for	Prerequisites: None.	PED103DF may be repeated for credit.	Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			all skill levels. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence.		COMMON COMPETE NCY COURSE		
PED103GF	Group Fitness/Aerobics		Group exercise incorporating a variety of equipment to increase respiration, heart rates, strength, and flexibility.	Prerequisites: None.	PED103GF may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103HK	Hiking		Develop safe and effective hiking skills. Essentials and requirements for safe hiking; proper hiking clothing and attire; impact of hiking on the environment.	Prerequisites: None.	PED103HK may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103KB	Kickboxing		Techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self-confidence. Jabs, kicks, and blocks will be used in this martial arts based workout.	Prerequisites: None.	PED103KB may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103KF	Kung Fu		Techniques of one of the most comprehensive martial arts in China.	Prerequisites: None.	PED103KF may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103LD	Latin Dancing		Spicy, energetic style of dance. Cha Cha, Merengue, Salsa, Rumba, and Bolero. Partners rotate.	Prerequisites: None.	PED103LD may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103PC	Physical Conditioning		Exercise program with access to free weights, strength machines and cardio equipment.	Prerequisites: None.	PED103PC may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PED103PS	Pilates		Mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment.	Prerequisites: None.	PED103PS may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103QG	Qi Gong		Ancient Chinese Qi Gong breathing exercises for healing and opening channels of energy. Includes Power of Positive thought along with relaxation and meditation techniques.	Prerequisites: None.	PED103QG may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103SA	Salsa		Basic moves for the popular, hot Latin dance Salsa. Partners rotate.	Prerequisites: None.	PED103SA may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103SM	Swimming		Designed to improve cardiovascular fitness, flexibility and muscular endurance in an aquatic environment. Includes instruction and coaching in basic swim strokes and breathing techniques as well as tips for improving efficiency of movement in the water.	Prerequisites: None.	PED103SM may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
PED103SR	Stretch and Relaxation		A mat-based stretching class with guided meditation. Stretching increases flexibility and relieves stress, promoting an overall sense of well being.	Prerequisites: None.	PED103SR may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103TC	Tai Chi		Fundamentals of Tai Chi including moves, breathing and meditation.	Prerequisites: None.	PED103TC may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103TX	Suspension Training		Suspension training using TRX or similar equipment. Designed to develop strength,	Prerequisites: None.	PED103TX may be repeated for credit.	Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			balance, flexibility and core stability. Incorporates a variety of exercises using adjustable positions, stability levels and intensities. Suitable for all skill levels.		Common Competency Course		
PED103VB	Volleyball		Basic skills and game strategy of volleyball. Class emphasis on competition and drills.	Prerequisites: None.	PED103VB may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103W W	Weight Training for Women		Introduction for women to the use of free weights, strength machines and cardio equipment.	Prerequisites: None.	PED103W W may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103YG	Gentle Yoga		Focuses on the use of such props as blankets, blocks, and chairs to modify traditional Yoga poses, enabling participation with moderate effort and without strain; suitable for all levels but especially for students needing a slower pace.	Prerequisites: None.	PED101YG may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
PED103YH	Hatha Yoga		Combination of traditional and flow style yoga that utilizes breathing, yoga poses, relaxation and meditation to create balance and inner peace.	Prerequisites: None.	PED103YH may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103YI	Iyengar Yoga		Form of Hatha Yoga using various props such as belts, blocks, and straps used to focus on precise body alignment.	Prerequisites: None.	PED103YI may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103YK	Kundalini Yoga		Energetically guided Yoga focusing on psycho-spiritual growth with special consideration of the	Prerequisites: None.	PED103YK may be repeated for credit. COMMON	Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			spine and endocrine system.		COMPETE NCY COURSE		
PED103YO	Yoga		Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques.	Prerequisites: None.	PED103YO may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103YP	Power Yoga		Yoga postures performed in a dynamic series designed to gain strength, add flexibility, release toxins. This is a vigorous, athletic form of yoga.	Prerequisites: None.	PED103YP may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 0.5 1.0 1.0
PED103YR	Restorative Yoga		Gentle form of Yoga poses utilizing props to create fully supported postures; focuses on relaxation and involves non-rigorous physical activity, providing rest and recovery and promoting the restoration of tranquility; suitable for all levels.	Prerequisites: None.	PED101YR may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
PED103ZU	Zumba Fitness		Zumba dynamic fitness program. Features high energy, easy to follow rhythmic moves set to energizing Latin and international beats. Provides an enjoyable way to increase fitness level.	Prerequisites: None.	PED103ZU may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
PED105	Army Master Fitness		Introduces the student to the Army Master Fitness Program. Designed to enhance the student's level of individual fitness and wellness.	Prerequisites: None.	PED105 may be repeated for credit. PED105 is taught at the ASU Tempe Campus. Contact the Army ROTC Department .	Occ	L+L 1.0 3.0 0.0
PED114	Fitness		Fitness activity and wellness study to help develop a lifetime of	Prerequisites: None.	PED114 may be	Occ	L+L 1.5 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch.		repeated for credit.		
PED115	Lifetime Fitness		Increase personal fitness, strength, and vitality. Current principles of cardiovascular exercise, weight training, flexibility, and balance exercises applicable to lifetime fitness goals. Personalized fitness plans developed and implemented with support of highly trained fitness professionals. Techniques to make sessions more effective and enjoyable.	Prerequisites: None.	PED115 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0
PED116	Cardiovascular Fitness		Blends an effective warm-up, challenging cardiovascular and strength/endurance training strategies and a relaxing cool-down. Tailored by certified fitness professionals to personal goals.	Prerequisites: None.	PED116 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0
PED117	Weight Training for Wellness		Strength training and muscular fitness activity to help develop a lifetime of regular exercise and muscular strength maintenance. Development of full body strength and stability of the body's core musculature, translating to increased power, balance, and functional movement ability including assessment of current strength and goal-specific program design to increase strength and muscular fitness.	Prerequisites: None.	PED117 may be repeated for a maximum of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0
PED118	Exercise is Medicine(r)		Group exercise that is individualized by highly trained fitness	Prerequisites: None.	PED118 may be repeated for	Occ	L+L 1.5 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professionals to help meet personal health enhancement goals. Designed to follow the national initiative, "Exercise is Medicine(r)", coordinated by the American College of Sports Medicine (ACSM) and the American Medical Association (AMA) to help improve overall health and well-being. Designed for individuals over age 55.		a total of six (6) credit hours.		
PED120AF	Special Emphasis Activities: Weight Training		Intensive experience in weight training.	Prerequisites: None.	PED120AF may be repeated for a total of 8 credits. COMMON COMPETE NCY COURSE	Occ	L+L 2.0 4.0 4.0
PED124	Strength and Conditioning for Sport Performance: Basic		Introduction to the principles and training techniques of strength and conditioning for sport performance. Emphasis is placed on beginning instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity.	Prerequisites: None.	PED124 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0
PED125	Strength and Conditioning for Sport Performance: Intermediate		Principles and training techniques of strength and conditioning for sport performance. Emphasis is placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity.	Prerequisites: A grade of C or better in PED124.	PED125 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0
PED133	Olympic Style Weight Lifting		Advanced study of the science, strategy, and techniques of Olympic Style Weightlifting. For the fitness professional who is interested in	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			competing, or is seeking to incorporate advanced strength and conditioning modalities. Addresses current topics, theories and techniques				
PED158	Tradition and Practice of Yoga III		A deep exploration of the yogic path as it relates to the self, to teaching yoga, and to society as a whole. Emphasis on the early and modern intellectual foundations of yoga.	Prerequisites: A grade of C or better in PED150 and PED155.		Occ	LEC 2.0 2.0 2.0
PED191	Corrective Exercise for Athletes: Basic		Evaluation of functional movement ability and corrective activity to improve specific functional movements. Optimize functional movement abilities by designing corrective activity to improve weaknesses, correct imbalances and asymmetries in order to contribute to athletic and fitness performance.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0
PED192	Corrective Exercise for Athletes: Intermediate		Evaluation of functional movement ability and corrective activity to improve functional movement at the intermediate level. Optimize functional movement abilities and dynamic sport movement by designing corrective activity at the intermediate level to improve weaknesses, correct imbalances and asymmetries in order to contribute to athletic and fitness performance.	Prerequisites: A grade of C or better in PED191 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
PED201BA	Baseball - Advanced		To improve upon intermediate skills and game strategy of baseball at the advanced level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED201BA may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201BB	Basketball - Advanced		To improve upon intermediate skills and	Prerequisites: None. Prior	PED201BB may be	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross References	Description	Requisite	Course Note	Subject Type	Credits Periods Load
			game strategy of basketball at the advanced level. Class emphasis on competition and drills.	experience at competitive level recommended.	repeated for credit. COMMON COMPETENCY COURSE		
PED201BD	Ballroom Dancing - Advanced		Advanced level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate.	Prerequisites: None. Prior experience at competitive level recommended.	PED201BD may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201CH	Cheerleaders - Advanced		Advanced skills of cheerleading with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies.	Prerequisites: None. Prior experience at competitive level recommended.	PED201CH may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201FB	Football - Advanced		Improve upon intermediate skills and game strategy of football at the advanced level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED201FB may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201GO	Golf - Advanced		Experienced golfers gain helpful hints and practice to improve their game.	Prerequisites: None. Prior experience at competitive level recommended.	PED201GO may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201PC	Physical Conditioning - Advanced		Advanced level training program with access to free weights, strength machines and cardio equipment.	Prerequisites: None. Prior experience at competitive level recommended.	PED201PC may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201SA	Salsa - Advanced		Learn the advanced dance moves for Salsa.	Prerequisites: None. Prior experience at competitive level recommended.	PED201SA may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201SB	Softball - Advanced		Improve upon intermediate skills and	Prerequisites: None. Prior	PED201SB may be	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			game strategy of softball at the advanced level. Class emphasis on competition and drills.	experience at competitive level recommended.	repeated for credit. COMMON COMPETENCY COURSE		
PED201SO	Soccer - Advanced		To improve upon intermediate skills and game strategy of soccer at the advanced level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED201SO may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201ST	Strength Training - Advanced		Advanced techniques of strength training, concentrating on incorporating a vigorous exercise regimen for increasing muscle strength and endurance.	Prerequisites: None. Prior experience at competitive level recommended.	PED201ST may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201SU	Scuba Diving: Advanced		Additional training in SCUBA techniques. Pool sessions and weekend open water dives will provide training in: Underwater Navigation, Underwater Naturalist, Deep Dive, and other specialties.	Prerequisites: None. Prior experience at competitive level recommended.	PED201SU may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201TC	Tai Chi - Advanced		Advanced level techniques of Tai Chi including moves, breathing and meditation.	Prerequisites: None. Prior experience at competitive level recommended.	PED201TC may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201TF	Track and Field - Advanced		Advanced level training in track and field events. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED201TF may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201VB	Volleyball - Advanced		Improve upon intermediate skills and game strategy of volleyball at the advanced level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED201VB may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PED201WT	Weight Training - Advanced		Advanced level training with a qualified instructor on the use of Olympic and Free Weights.	Prerequisites: None. Prior experience at competitive level recommended.	PED201WT may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED201YO	Yoga - Advanced		Advanced yoga postures.	Prerequisites: None. Prior experience recommended.	PED201YO may be repeated for credit. COMMON COMPETE NCY COURSE	Occ	L+L 1.0 2.0 2.0
PED202	Physical Activities: Elite		Individual, dual, or team sports activities at the elite level.	Prerequisites: None. Prior experience at competitive level recommended.	PED202 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED202BA	Baseball - Elite		Improve upon advanced skills and game strategy of baseball at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED202BA may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED202BB	Basketball - Elite		Improve upon advanced skills and game strategy of basketball at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED202BB may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED202FB	Football - Elite		Improve upon advanced skills and game strategy of football at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED202FB may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED202SB	Softball - Elite		Improve upon advanced skills and game strategy of softball at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED202SB may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED202SO	Soccer - Elite		Improve upon advanced skills and game strategy of soccer at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level	PED202SO may be repeated for credit.	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				recommende d.			
PED202TF	Track and Field - Elite		Improve upon advanced skills and game strategy of track and field at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommende d.	PED202TF may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED202VB	Volleyball - Elite		Improve upon advanced skills and game strategy of volleyball at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommende d.	PED202VB may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
PED224	Strength and Conditioning for Sport Performance: Advanced		Principles and training techniques of strength and conditioning for sport performance. Emphasis placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity; and injury prevention.	Prerequisites: A grade of C or better in PED124 and PED125.	PED224 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0
PED225	Strength and Conditioning for Sport Performance: Elite		Principles and training techniques of strength and conditioning for sport performance. Emphasis placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity; injury prevention; and assessment techniques.	Prerequisites: A grade of C or better in PED124, PED125 and PED224.	PED225 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0
PED280	Introduction to Yoga Therapy		Introduction to the therapeutic use of yoga. Includes basic concepts of yoga therapy, identification of common therapeutic problems and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement and	Prerequisites: A grade of C or better in PED270 or permission of Instructor.		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			promote health and well-being.				
PED281	Yoga Therapy - Upper Body Principles		Basic concepts of yoga therapy, review of therapeutic interventions, identification of common therapeutic problems, and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement capability and promote health and well-being of the upper body. Emphasis on the study of chronic problem areas and therapeutic issues with shoulders and upper body.	Prerequisites: A grade of C or better in PED280 or permission of Instructor.		Occ	L+L 2.0 2.0 2.0
PED282AA	Service-Learning Experience in Physical Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PED282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0
PED282AB	Service-Learning Experience in Physical Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PED282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0
PED282AC	Service-Learning Experience in Physical Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PED282AC may be repeated for a total of six (6) credit	Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					hours. Standard grading available according to procedures outlined in catalog.		
PED283	Yoga Therapy - Low Back Principles		Basic concepts of yoga therapy, review of therapeutic interventions, identification of common therapeutic problems, and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement capability and promote health and well-being. Emphasis on the study of chronic problem areas and therapeutic issues associated with the lower back.	Prerequisites: A grade of C or better in PED280 or permission of Instructor.		Occ	L+L 2.0 2.0 2.0
PED284	Yoga Therapy - Knee Principles		Basic concepts of yoga therapy, review of therapeutic interventions, identification of common therapeutic problems of the knee, and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement capability and promote health and well-being. Emphasis on the study of chronic problem areas and therapeutic issues.	Prerequisites: A grade of C or better in PED280 or permission of Instructor.		Occ	L+L 2.0 2.0 2.0
PED287	Physical Education of the Atypical		Individualized activities programs for students with limited physical capacities.	Prerequisites: Permission of Instructor.	PED287 may be repeated for credit.	Occ	LEC 2.0 2.0 2.0
PED288	Yoga Therapy Practicum		Focus on immersion in the area of Yoga Therapy. Yoga Therapy application onsite at the	Prerequisites: A grade of C or better in (PED280,	PED288 may be repeated for a total of	Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			community college with a current instructor of Yoga. Requires minimum of 150 contact hours.	PED281, PED283, and PED284) or permission of Program Director.	eight (8) credit hours.		
PED291	Corrective Exercise for Athletes: Advanced		Evaluation of functional movement ability and corrective activity to improve functional movement at an advanced level. Optimize functional movement abilities by designing advanced corrective activity to improve weaknesses, correct imbalances and asymmetries in order to contribute to athletic and fitness performance. Self-assessment at an advanced level of imbalances and selection of appropriate corrective exercises.	Prerequisites: A grade of C or better in PED192 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0
PED296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career interest or with permission of Instructor.			
PED296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
PED296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				(students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
PED296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
PED298AA	Special Projects		Organized and tailored around the interests and	Prerequisites: Permission of		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Program Director or Instructor.			
PED298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
PED298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PHC101	Pharmacology for Pharmacy Technicians		Overall history of pharmacy from ancient times to today; pharmacy technician job ethics and responsibilities; state and national drug laws and regulations; pharmacy information reference material; pharmaceutical abbreviations and introduction to prescription sig codes.	Prerequisites: 1. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. 2. Successful completion of MAT090, MAT091, MAT092, MAT095, MAT096 or higher, or appropriate math placement into MAT103.		CLK	60
PHC102	Pharmacy Tech I		Technical aspects of prescription dispensing and drug distribution in the retail and hospital setting utilizing the computer. Bulk compounding, packaging, inventory control, drug storage and a variety of drug delivery systems. Laws that relate to specific technical tasks.	Prerequisites: PHC101 or with Program Manager approval.		CLK	120
PHC102AB	Pharmacy Tech II		Responsibilities of a pharmacy technician specific to working in a hospital and community setting; common drugs and their uses; drug routes of administration; basic biopharmaceutics; billing and reimbursement; sterile and non-sterile compounding; pharmacy career development; introduction to resume building, job search training.	Prerequisites: PHC102 or with Program Manager approval.		CLK	128
PHC107	Math and Dosages		Principles of household, metric and apothecary measurements, medical symbols and abbreviations. Emphasizes drug dose	Prerequisites: PHC102AB or with Program Manager approval.		CLK	90

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			unit calculations and drug pricing.				
PHC114	Pharmacy Tech Externship		This course will give students hands-on experience with patients, staff, and other pharmacy professionals while using their skills and techniques they obtain from the pharmacy program coursework. Students are assigned to the site of an approved pharmacy partner. This will prepare the student for the transition from school to industry, to gain valuable work experience, and to provide an opportunity to network in the workforce.	Prerequisites: 1. PHC102AB, PHC107, PHC122, or with Program Manager approval. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check Policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 4. Complete and submit the Allied Health Student Health and Safety Documentati on Checklist, with included documentatio n. 5. Students are	Externship hours are site specific and may require attendance any day of the week, including during unschedule d days and times.	CLK	200

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentation.			
PHC120	Pharmacology and Pharmacy Technology		This course is designed to offer incumbent pharmacy technician trainees foundational knowledge in pharmacy history, evolving roles and responsibilities of the pharmacy technician, ethics, and state and national drug laws and regulations in order to prepare for the national certification examination. Students will focus on learning the top 200 prescribed medications, pharmaceutical abbreviations, and prescription sig codes. Additionally, students will practice prescription dispensing, adjudication with insurance companies, and medication distribution in retail and hospital pharmacy settings. Students will practice computer skills, bulk compounding, packaging, inventory control, medication storage, and drug delivery systems. Students will practice pharmaceutical math to calculate drug dosing, as well as the principles of household, metric, and apothecary measurements to safely compound sterile and non-sterile medications.	Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101. Successful completion of MAT090, MAT091, MAT092, MAT095, MAT096 or higher, or appropriate math placement into MAT103.	Lab fees for this course include materials such as Pharmaseer, Pharmamath, Personality, online study guide, lab supplies, and a take-home lab kit.	CLK	230

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PHC122	Pharmacy Technician Certification Review		This course is designed to prepare Pharmacy Technician trainees, incumbent workers, or Pharmacy Technician certificate students for the NHA Exam for the Certification of Pharmacy Technicians (ExCPT) and the PTSB Pharmacy Technician Certification Exam (PTCE), both recognized by the Arizona State Board of Pharmacy.	Prerequisites: A grade of C or better PHC155 or Pharmacy Technician Training License or permission of Department or Division.	Course fees include certification practice exams and first time attempt at the NHA ExCPT certification exam conducted via remote proctoring on location at GWCC campus.	CLK	24
PHC150	Introduction to Pharmacy Practice		This course provides a basic overview of the pharmacy industry to prepare students for an entry level pharmacy technician role. Students will be introduced to the knowledge and skills required for a pharmacy technician including roles and responsibilities, anatomy, physiology and health science, as well as pharmacology, scope of practice and federal laws and regulations.	Prerequisites: 1. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. 2. Successful completion of MAT090, MAT091, MAT092, MAT095, MAT096 or higher, or appropriate math placement into MAT103.		CLK	60
PHC153	Basic Pharmacy Practice		Technical aspects of prescription dispensing and drug distribution in the retail and hospital setting utilizing the computer. Bulk compounding, packaging, inventory control, drug storage and a variety of drug delivery systems. Laws that relate to specific technical tasks.	Prerequisites: A grade of C or better in PHC150.		CLK	90
PHC155	Advanced Pharmacy Practice		Responsibilities of a pharmacy technician specific to working in a hospital and community setting; common drugs	Prerequisites: A grade of C or better in PHC153.		CLK	90

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and their uses; drug routes of administration; basic biopharmaceutics; billing and reimbursement; sterile and non-sterile compounding; pharmacy career development; introduction to resume building, job search training.				
PHC253	Pharmacy Technician Practicum		Consists of 160 hours at a clinical site, under the supervision of a pharmacist or senior pharmacy technician. Includes hands-on experience with patients, staff, and other healthcare professionals while applying the knowledge and skills obtained in the pharmacy technician program. Preparation for work experience in a pharmacy setting.	Prerequisites: A grade of C or better in PHC155.		CLK	160
PHI101	Introduction to Philosophy		General consideration of human nature and the nature of the universe. Knowledge, perception, freedom and determinism, and the existence of God	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] Arizona Shared Unique Number SUN#: PHI 1101	Acad	LEC 3.0 3.0 3.0
PHI103	Introduction to Logic		Informal logic, logical fallacies, elementary symbolic logic, analysis of argument forms, and construction of proofs for validity	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					: Literacy and Critical Inquiry - [L] Arizona Shared Unique Number SUN#: PHI 1103		
PHI104	World Philosophy		Examination of questions such as the meaning of life and death, social justice, appearance and reality, human nature, the identity of the self freedom and destiny, the ethical life, and the relationship of science and religion. Comparative analysis of diverse Eastern and Western viewpoints	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
PHI105	Introduction to Ethics		A survey of ethical theory in Western Philosophy, including the major normative theories and selected metaethical theories.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
PHI201	History of Ancient Philosophy		Historical survey of the intellectual history of the Greco-Roman world, focusing on the philosophical tradition and social/historical context	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
PHI212	Contemporary Moral Issues		Philosophical consideration of such moral issues as civil disobedience, preferential treatment, abortion, privacy, sexual morality, and poverty and hunger	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Design - [HU]		
PHI213	Medical and Bio-Ethics		A philosophical consideration of moral problems that arise in relation to medicine and biology, e.g., death, patient's rights and biological experimentation	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
PHI214	Business Ethics		Philosophical consideration of moral problems arising in business practice, including corporate responsibility, government regulation, hiring practices, and advertising. Application to both the United States and other countries	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
PHI215	Legal Ethics		Philosophical considerations of moral problems encountered in the law and the legal system by legal professionals and other involved parties	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
PHI216	Environmental Ethics		Philosophical consideration of diverse theories and perspectives on the environment, and application of these theories to global moral issues such as animal rights, preservation of wilderness and species, population, world hunger and poverty, and air and water pollution.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
PHI218	Philosophy of Sexuality		Philosophical examination of sexuality in human life. Historical and critical survey of philosophical and theological views. Comparison and evaluation of	Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Instructor.	PHI218 may contain adult content. All students under 18 years old are required	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			contemporary theories about the nature of sexual desire and sexual acts. Implications of theories for contemporary moral problems.		to have a signed parental consent form on file, which is on the back of the Students Under The Age of 18 Enrollment Form. Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]		
PHI224	Political Philosophy		Predominant figures and theories in Euroamerican political philosophy from Plato to contemporary social/political philosophers.	Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Humanities and Fine Arts - [L]	Acad	LEC 3.0 3.0 3.0
PHI233AA	Metaphysics: An Introduction		Metaphysical issues which have concerned philosophers from the time of the ancient Greeks until the present; topics selected from the following: the nature and function of metaphysics, reality, universals, space, time and the	Prerequisites: A grade of C or better in PHI101 or permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			infinity, rational theology, the nature of the mind, causation and the nature of things				
PHI233AB	Theory of Knowledge		Epistemological issues which have concerned philosophers from the time of the ancient Greeks until the present. Topics selected from the following: the technical terminology of epistemology, the nature of knowledge, knowledge of past events, knowledge of other minds, and knowledge of physical objects	Prerequisites: A grade of C or better in PHI101 or permission of Instructor.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
PHI233AC	Philosophical Psychology		Philosophical principles and tools used in analyzing the nature of the mind	Prerequisites: A grade of C or better in PHI101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
PHI234AA	Plato		The ideas of Plato and Socrates and their impact on western thought	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
PHI244	Philosophy of Religion	REL244	Religious language, the existence of God, miracles, and human destiny	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
PHI245	Introduction to Eastern Philosophy		Fundamental theories of Indian and Chinese metaphysics, epistemology, ethics and aesthetics	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					: Humanities, Arts and Design - [HU]		
PHI250	Ethics in Higher Education		Philosophical consideration of and diverse perspectives on moral problems that arise in higher education, including academic freedom, hiring practices, diversity, sexual harassment, community responsibilities, stewardship of public trust, intellectual property, and other related issues	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
PHI251	Philosophy of Sport		General consideration of sport in its philosophical dimensions. Possible topics include the Zen of sport, strategy and competition, sport, practice, and play, and cheating versus fair play	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
PHI282AC	Service Learning Experience in Philosophy		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in PHI101 or permission of Instructor.	PHI282AC may be repeated for a total of six (6) PHI282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours.	Acad	LAB 3.0 3.0 0.0
PHI296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
PHI296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PHI296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
PHI296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
PHI298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
PHI298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
PHI298AC	Special Projects		Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of Program		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
PHS110	Fundamentals of Physical Science		Survey of the principles of physics and chemistry.	Prerequisites: A grade of C or better in MAT090 or higher level mathematics course or eligibility for MAT120 or higher as indicated by appropriate placement.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
PHS115	The Science of Musical Instruments		A science class set in a musical context where students learn about music, musical instruments, and about the underlying scientific and mathematical principles of sound.	Prerequisites: A grade of C or better in MAT090, or higher level mathematics course, or eligibility for MAT120 or higher as indicated by appropriate placement.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
PHS120	Introduction to Physical Science: Astronomy, Meteorology, Geology and Oceanography		Designed primarily for students with limited background in physical science and mathematics and for nonscience majors. Topics from astronomy, meteorology, geology and oceanography. A laboratory course designed to help the students learn the basic	Prerequisites: None.	Students may not receive credit for both PHS120 and GLG106. Course Attribute(s): General Education	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			laws and facts of the physical sciences which provide the starting points for scientific thought and speculations.		Designation : Natural Sciences (Quantitativ e) - [SQ]		
PHS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
PHS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
PHS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
PHT104	Pharmacology for Pharmacy Technicians		Overview of pharmacology for pharmacy technicians. Includes drug conversion factors and dosage calculations as well as disease states and biopharmaceutics	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
PHT109	Drug Actions and Effects		Drug names, dosage forms, indications, routes of administration and side effects of drugs. Basic anatomy and functions of body systems relevant to most commonly prescribed drugs	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PHT120	Pharmacy Technician Responsibilities		Responsibilities and skills of pharmacy technicians. Emphasis on federal and state laws, prescription entry and fulfillment, drug regulations, and drug calculations, as well as pharmaceutical products, abbreviations, and terminology. Includes inventory management, administration routes, financial issues, and pharmacy environments	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PHT150	Introduction to Pharmacy Practice		This course provides a basic overview of the pharmacy industry to prepare students for an entry level pharmacy technician role. Students will be introduced to the knowledge and skills	Prerequisites: Acceptance into the Pharmacy Technician program.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			required for a pharmacy technician including roles and responsibilities, anatomy, physiology and health science, as well as pharmacology, scope of practice and federal laws and regulations.				
PHT153	Basic Pharmacy Practice		Technical aspects of prescription dispensing and drug distribution in the retail and hospital setting utilizing the computer. Bulk compounding, packaging, inventory control, drug storage and a variety of drug delivery systems. Laws that relate to specific technical tasks.	Prerequisites: A grade of C or better in PHT150.		Occ	L+L 5.0 8.0 8.0
PHT155	Advanced Pharmacy Practice		Responsibilities of a pharmacy technician specific to working in a hospital and community setting; common drugs and their uses; drug routes of administration; basic biopharmaceutics; billing and reimbursement; sterile and non-sterile compounding; pharmacy career development; introduction to resume building, job search training.	Prerequisites: A grade of C or better in PHT153.		Occ	L+L 5.0 8.0 8.0
PHT250	Pharmacy Technician Certification Review		This course is designed to prepare Pharmacy Technician trainees, incumbent workers, or Pharmacy Technician certificate students for the NHA Exam for the Certification of Pharmacy Technicians (ExCPT) and the PTSB Pharmacy Technician Certification Exam (PTCE), both recognized by the Arizona State Board of Pharmacy.	Prerequisites: A grade of C or better PHT155, or Pharmacy Technician Training License, or permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
PHT253	Pharmacy Technician Externship		Consists of 200 hours at a clinical site, under the supervision of a	Prerequisites: A grade of C		Occ	LAB 2.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			pharmacist or senior pharmacy technician. Includes hands-on experience with patients, staff, and other healthcare professionals while applying the knowledge and skills obtained in the pharmacy technician program. Preparation for work experience in a pharmacy setting.	or better in PHT155.			
PHT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
PHT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE	average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
PHT296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career interest or with permission of Instructor.			
PHT296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
PHT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			learning to be combined to maximize student development.				
PHT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
PHT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
PHY101	Introduction to Physics		A survey of physics emphasizing applications of physics to modern life.	Prerequisites: A grade of C or better in MAT090 or higher level mathematics course or eligibility for MAT120 or higher as indicated by appropriate placement.	Students may receive credit for only one of the following: PHY101 or PHY101AA. Course Attribute(s): General Education Designation : Natural Sciences	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					(Quantitativ e) - [SQ]		
PHY101AA	Introduction to Physics		A survey of physics emphasizing applications of physics to modern life.	Prerequisites: A grade of C or better in MAT090 or higher level mathematics course or eligibility for MAT120 or higher as indicated by appropriate placement.	Students may receive credit for only one of the following: PHY101 or PHY101AA Course Attribute(s): General Education Designation : Natural Sciences (Quantitativ e) - [SQ]	Acad	LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0
PHY111	General Physics I		Includes motion, energy, and properties of matter.	Prerequisites: A grade of C or better in MAT182 or MAT187 or MAT220 or MAT221 or eligibility for MAT220 as indicated by appropriate placement or one year high school Trigonometry with a grade of C or better or permission of Department or Division.	PHY111 is recommend ed for preprofessi onal and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA. Course Attribute(s): General Education Designation : Natural Sciences (Quantitativ e) - [SQ] Arizona Shared Unique Number SUN# PHY1111	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
PHY111AA	General Physics I		Includes motion, energy, and properties of matter.	Prerequisites: A grade of C or better in MAT182 or MAT187 or	Recommen ded for preprofessi onal and suggested	Acad	LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				MAT220 or MAT221 or eligibility for MAT220 as indicated by appropriate placement or one year high school Trigonometry with a grade of C or better or permission of Department or Division.	for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA. Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]		
PHY112	General Physics II		Includes electricity, electromagnetism, and modern physics.	Prerequisites: A grade of C or better in PHY111.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN#: PHY 1112	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
PHY115	University Physics I		General physics course using calculus to develop the principles of mechanics and thermodynamics. Recommended for majors in the sciences and mathematics. Required for Engineering majors.	Prerequisites: A grade of C or better in MAT220 or MAT221 or permission of Department or Division. Corequisites: MAT230 or MAT231. One year of High School physics or PHY111 and PHY112 is strongly recommended.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ]	Acad	LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0
PHY116	University Physics II		Principles of electricity, magnetism, waves, and	A grade of C or better	Course Attribute(s):	Acad	LEC 5.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			optics. Required for Engineering majors.	required in all Prerequisites. Prerequisites: (MAT230 or MAT231) and PHY115. Prerequisite or Corequisites: MAT240 or MAT241 or permission of Instructor.	General Education Designation : Natural Sciences (Quantitative) - [SQ]		LAB 0.0 3.0 3.0
PHY118	Explorations in Science Teaching		General overview of the profession of the science educator with a look at student, teachers, curricula, and classroom techniques. Includes discussion of theory, pedagogy, and practice of teaching physical science. Available curricula will be reviewed for their alignment with the state and national standards. Includes guided practice with designing and teaching inquiry-based science lessons for K-12 classrooms.	Prerequisites: None.	The State of Arizona requires fingerprint clearance cards for all students engaged in a classroom field experience. PHY118 requires additional practicum hours in K-12 schools outside of scheduled class time. To avoid any delay, students should begin the fingerprint clearance process prior to the start of the classes.	Acad	L+L 1.0 2.0 2.0
PHY121	University Physics I: Mechanics		Kinematics, Newton's laws, work, energy, momentum, conservation laws, dynamics of particles, solids, fluids, mechanical waves, and sound.	Prerequisites: A grade of C or better in MAT220 or MAT221 or permission of Department or Division. One year of High School physics or PHY111 and	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				PHY112 suggested but not required.	Number SUN#: PHY 1121		
PHY131	University Physics II: Electricity and Magnetism		Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves.	Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department or Division and PHY121. Corequisites: MAT241 or permission of Department or Division.	Course Attribute(s): General Education Designation : Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN#: PHY 1131	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
PHY195AA	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.	Prerequisites: A grade of C or better in PHY121 or permission of Instructor.	PHY195AA may be repeated for credit.	Acad	L+L 1.0 2.0 2.0
PHY195AB	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific	Prerequisites: A grade of C or better in PHY121 or permission of Instructor.	PHY195AB may be repeated for credit.	Acad	L+L 2.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.				
PHY195AC	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.	Prerequisites: A grade of C or better in PHY121 or permission of Instructor.	PHY195AC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0
PHY241	University Physics III: Thermodynamics, Optics, and Wave Phenomena		Heat, entropy, and laws of thermodynamics; wave propagation; geometrical and physical optics; introduction to special relativity.	Prerequisites: A grade of C or better in PHY116 or PHY131 or permission of Instructor.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
PHY282AA	Service-Learning Experience in Physical Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PHY282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PHY282AB	Service-Learning Experience in Physical Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PHY282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
PHY282AC	Service-Learning Experience in Physical Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PHY282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
PHY285	Introduction to Astrodynamics	AST285 ECE285	Introduction to celestial mechanics and the dynamics of spacecraft navigation. Introduction to rocket propulsion and spacecraft design. Orbital and interplanetary celestial mechanics and maneuvers. Astrophysics and characteristics of the space environment. Lab is project-based, utilizing a real-time spacecraft simulation environment.	Prerequisites: A grade of C or better in ENG101 and (PHY115 or PHY121).		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
PHY294	Special Topics in Physics		Conceptual, experimental, and computational aspects of a special topic in physics.	Prerequisites: Permission of Department or Division.	PHY294 may be repeated for credit.	Acad	LEC 3.0 3.0 3.0
PHY294AA	Special Topics in Physics		Conceptual, experimental, and computational aspects of a special topic in physics.	Prerequisites: Permission of Department or Division.	PHY294AA may be repeated for credit.	Acad	LEC 2.0 2.0 2.0
PHY294AB	Special Topics in Physics		Conceptual, experimental, and	Prerequisites: Permission of	PHY294AB may be	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			computational aspects of a special topic in physics.	Department or Division.	repeated for credit.		
PHY294AC	Special Topics in Physics		Conceptual, experimental, and computational aspects of a special topic in physics.	Prerequisites: Permission of Department or Division.	PHY294AC may be repeated for credit.	Acad	LEC 0.5 0.5 0.5
PHY298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
PHY298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
PHY298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
PIM115	Beginning Pima Conversation I		Conversational Pima. Basic sentence structure, pronunciation, and vocabulary necessary to develop speaking ability in Pima. Designed to develop speaking and listening abilities, with little emphasis on grammar	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
PIM116	Beginning Pima Conversation II		Reviews basic Pima vocabulary, pronunciation, and sentence structure. Designed to develop speaking, listening, and writing skills in O'Odham for effective communication in Pima.	Prerequisites: A grade of C or better in NAV201 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
PLB109	Phlebotomy: Basic Skills		Theory and practice of basic phlebotomy including laboratory test codes, equipment, and procedures.	Prerequisites: (Acceptance into the Laboratory Assisting or Phlebotomy program or permission of Instructor) and permission of Program Director.		Occ	L+L 2.0 4.0 4.0
PLB110	Practicum: Fundamental Phlebotomy Skills		Application of fundamental phlebotomy techniques in a clinical laboratory setting or health care environment.	Prerequisites: A grade of C or better in PLB109 and submit to a	PLB110 may be repeated for credit.	Occ	LAB 0.5 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				drug screening and demonstrate negative results and acceptance into the Medical Assisting or Phlebotomy program or permission of Program Director.			
PLB110AA	Practicum: Basic Phlebotomy: Training for Law Enforcement Officers		Application of basic phlebotomy techniques in a clinical laboratory setting or health care environment for law enforcement purposes.	Prerequisites: Certified Law Enforcement Officer or permission of Program Director. Corequisites: PLB109.		Occ	LAB 2.0 6.0 0.0
PLB111	Specimen Processing and Advanced Techniques in Phlebotomy Procedures		Theory and practice of advanced techniques in phlebotomy and specimen processing including laboratory test codes, equipment, and procedures.	Prerequisites: A grade of C or better in PLB109 and permission of Program Director.		Occ	L+L 2.0 4.0 4.0
PLB112	Practicum: Specialized Phlebotomy Techniques		Application of specialized phlebotomy techniques in a clinical laboratory setting or health-care environment.	Prerequisites: A grade of C or better in PLB109 and PLB110. Corequisites: PLB111 and PLB121, or permission of Program Director.		Occ	LAB 0.5 3.0 0.0
PLB114	Refresher Course for Phlebotomists		Review of phlebotomy theory and practices including equipment, procedures, and special considerations. Reinforces and updates basic skills and competencies of phlebotomy techniques for individuals who have not worked in the field for between 6 months and 24 months and for those who have	Prerequisites: (Must provide proof of 2 years employment as a phlebotomist within the last 4 years or completion of a formal structured phlebotomy training	PLB114 may be repeated for credit.	Occ	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			completed a formal structured phlebotomy training program but have not worked in the field.	program within the last 2 years with proof of a minimum of 100 successful venipunctures) and permission of Program Director.			
PLB115	Developmental Skills for Law Enforcement Phlebotomy		Provides an update for specific law enforcement phlebotomy. Includes phlebotomy theory and practices including equipment, procedures, and special considerations of phlebotomy techniques.	Prerequisites: Permission of Program Director.	PLB115 may be repeated for credit.	Occ	L+L 1.0 1.0 1.0
PLB121	Practicum: Basic Specimen Processing		Application of specimen processing techniques in a clinical laboratory setting or health care environment.	Prerequisites: A grade of C or better in PLB109 and PLB110. Corequisites: PLB111 and PLB112 or permission of Program Director.	PLB121 supports Medical Assisting program completers seeking the Certificate of Completion in Phlebotomy and requires formal acceptance into the program.	Occ	LAB 2.0 8.0 0.0
PLB122	Practicum: Phlebotomy and Specimen Processing		Application of phlebotomy and specimen processing techniques in a clinical laboratory setting or health care environment.	Prerequisites: A grade of C or better in PLB109 or permission of Program Director. Prerequisites: A grade of C or better in PLB111 or Corequisites: PLB111 or permission of Program Director.		Occ	LAB 3.0 12.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PLB250	Phlebotomy Program Review		Provides review of phlebotomy theory fundamental knowledge, and advanced concepts required for phlebotomy national certification examinations. Topics include anatomy and physiology, specimen collection, specimen processing and handling, non-blood specimens, and laboratory operations related to phlebotomy.	Prerequisites: (A grade of C or better in PLB122 or current employment with a minimum of one (1) year experience as a phlebotomist) and permission of Program Director.	PLB250 may be repeated for credit.	Occ	LEC 1.0 1.0 1.0
PLB280	Quality Assurance for Phlebotomy		Components, tests, and procedures for evaluation of phlebotomy to assure consistency in the collection, processing, and analysis process.	Prerequisites: Current employment in a law enforcement agency with a minimum of one (1) year of experience as a law enforcement phlebotomist or permission of Instructor.	PLB280 may be repeated for credit.	Occ	LEC 3.0 3.0 3.0
PLC109	Phlebotomy Basic Skills		Theory and practice of basic phlebotomy including laboratory test codes, equipment, and procedures.	Prerequisites: Admission into the Phlebotomy program. Successful completion of RDG100 or higher or appropriate reading placement into CRE101.		CLK	90
PLC111	Specimen Processing and Advanced Techniques in Phlebotomy		Theory and practice of advanced techniques in phlebotomy and specimen processing including laboratory test codes, equipment, and procedures.	Prerequisites: PLC109 or with Program Manager approval.		CLK	90
PLC113	Law Enforcement Phlebotomy		Theory and practice of basic Phlebotomy including laboratory test codes, equipment, and procedures. The course also includes	Prerequisites: Admission to Program or approval from the Program Manager.		CLK	56

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			introduction to case law specific to Law Enforcement Phlebotomists, chain of custody, courtroom testimony and specific draw considerations for operating in the field.	Corequisites: PLC113AB: Law Enforcement Phlebotomy Practicum.			
PLC113AB	Law Enforcement Phlebotomy Practicum		Application of basic Phlebotomy techniques in a clinical or field setting for Law Enforcement purposes during an onsite 3-day, face-to-face lab. Each day will consist of 8 hours of hands-on training and practical application of Law Enforcement Phlebotomy skills and fundamentals.	Prerequisites: Admission to Program or approval from the Program Manager. Corequisites: PLC113 Law Enforcement Phlebotomy.		CLK	24
PLC116	Law Enforcement Phlebotomy Refresher Course		Provides an update on theory and practices of Law Enforcement Phlebotomy including equipment, anatomy and physiology, safety guidelines, and practical application of blood collection and specimen handling procedures.	Prerequisites: Department Sponsored Law Enforcement Personnel with prior completion of the Law Enforcement Phlebotomy Program and/or equivalent, or permission from the Program Manager.		CLK	24
PLC122	Phlebotomy Practicum		Application of phlebotomy and specimen processing techniques in a clinical laboratory setting or health care environment.	Prerequisites: 1. PLC111 or with Program Manager approval. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental		CLK	120

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Background Check policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 4. Complete and submit the Allied Health Student Health and Safety Documentati on Checklist, with included documentatio n 5. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentatio n.			
PLG124	Plumbing: Pipes and Fittings		This course introduces the various types of plumbing materials, pipe schedules and material properties, and applications of piping. Trainees will learn how to determine the	Prerequisites: None.		CLK	81

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			appropriate types of fittings, valves, hangers, and supports needed for piping jobs. Trainees will learn to properly measure, cut, prep, and join piping.				
PLG125	Plumbing: Fixtures		This course introduces commonly used fixtures in plumbing systems. Students will select and operate each type of fixture for a variety of installations. The course provides an overview of plumbing system installation, maintenance and water heating systems.	Prerequisites: None.		CLK	61
PLG126	Plumbing: Drain, Waste, and Vent		This course addresses drainage, waste movement and ventilation for construction application. Course provides instruction in locating, installing, connecting, and testing a complete drain, waste, and vent (DWV) system.	Prerequisites: None.		CLK	81
PLG127	Plumbing: Water Distribution Systems		This course discusses the processes through which potable water is distributed. Students will learn to identify the components and functions of a water distribution system and explain the relationships among the components. The course also includes installation and testing of water distribution systems.	Prerequisites: None.		CLK	61
PLG224	Plumbing: Pipe Systems and Controls		This course covers applied calculations to determine size, types and service of pipe systems. Course also includes the application of drawings, codes, and specifications for assembly and installation of gas, air, and water systems.	Prerequisites: None.		CLK	81

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PLG225	Plumbing: Water Disposal Systems		Course covers water disposal and drainage systems, to include the types, components, functions, codes, safety, design, installation and repair.	Prerequisites: None.		CLK	102
PLG226	Plumbing: Fixtures and Appliances		Course covers the safety, codes, installation, maintenance, and repair of appliances, fixtures, and gas piping.	Prerequisites: None.		CLK	81
PLG227	Plumbing: Water Resource Solutions		Course introduces water supply disinfection, filtration systems, and sustainable water practices.	Prerequisites: None.		CLK	40
PME190	Introduction to ECG Rhythm Analysis and Interpretation for EMS Professionals		Designed to provide an overview of the anatomy and physiology of the cardiovascular system and electrophysiology of the cardiac conduction system for Emergency Medical Service (EMS) professionals. Basic electrocardiograph (ECG) multi-lead acquisition, analysis, and interpretation of various dysrhythmias and cardiovascular conditions.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PME191	Introduction to Pharmacology for EMS Professionals		Designed to provide an overview of the principles of pharmacology and pharmacologic agents utilized in patient management plans. Includes pharmacokinetics, pharmacodynamics, physiology of pharmacology, calculating drug dosages, and drug profiles.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PME201	Advanced Cardiac Life Support (ACLS) Initial Provider in Paramedicine		Designed to provide the knowledge and skills needed to recognize and manage cardiopulmonary arrest, acute dysrhythmia, stroke, and acute	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			coronary syndromes according to current emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in advanced cardiac life support.				
PME202	Pediatric Advanced Life Support (PALS) Initial Provider in Paramedicine		Designed to provide the knowledge and skills needed to recognize and manage an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current Pediatric Advanced Life Support (PALS) and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in pediatric emergencies.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 1.5 1.5
PME203	Pediatric Emergencies for Prehospital Professionals (PEPP) Initial Provider in Paramedicine		Designed to provide the knowledge and skills needed to recognize and manage an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current Pediatric Emergencies for Prehospital Professionals (PEPP) and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents,	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and other interventions used in pediatric emergencies.				
PME204	Neonatal Resuscitation Provider (NRP) in Paramedicine		Designed to provide the knowledge and skills needed to recognize and manage a neonate with respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current American Academy of Pediatrics (AAP) and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in neonatal resuscitation.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 0.5 1.5 1.5
PME205	Advanced Medical Life Support (AMLS) Initial Provider in Paramedicine		Designed to provide the knowledge and skills needed to recognize and manage various medical conditions according to the National Association of EMTs (NAEMT) Advanced Medical Life Support (AMLS) guidelines. Skills are sequenced and synthesized into simulations.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 1.5 1.5
PME206	International Trauma Life Support (ITLS) Provider/Pre-Hospital Trauma Life Support (PHTLS)		Designed to provide the knowledge and skills needed to recognize and manage various trauma conditions and environmental injuries according to the International Trauma Life Support (ITLS) or Provider/ Pre-Hospital Trauma Life Support (PHTLS) guidelines. Skills are sequenced and synthesized into simulations.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 1.5 1.5
PME211	Advanced Cardiac Life Support (ACLS) Refresher		Designed to meet Advanced Cardiac Life Support (ACLS) refresher requirements	Prerequisites: None.	PME211 may be repeated for credit.	Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			for the healthcare provider who initiates, directs, or participates in the management of cardiopulmonary arrest and other cardiovascular emergencies according to current cardiopulmonary resuscitation and emergency cardiovascular care guidelines. Provides the healthcare provider with the knowledge and skills needed to recognize and manage cardiopulmonary arrest, acute dysrhythmia, stroke, and acute coronary syndromes according to current emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in advanced cardiac life support.				
PME212	Pediatric Advanced Life Support (PALS) Refresher		Designed to meet Pediatric Advanced Life Support (PALS) refresher requirements for the healthcare provider who initiates, directs, or participates in the management of an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions	Prerequisites: None.	PME212 may be repeated for credit.	Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			used in pediatric emergencies.				
PME213	Pediatric Emergencies for Prehospital Professionals (PEPP) Refresher		Designed to meet Pediatric Emergencies for Prehospital Professions (PEPP) refresher requirements for the healthcare provider who initiates, directs, or participates in the management of an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current PEPP and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in pediatric emergencies.	Prerequisites: None.	PME213 may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
PME215	Advanced Medical Life Support (AMLS) Refresher		Designed to meet the National Association of EMTs (NAEMT) Advanced Medical Life Support (AMLS) refresher requirements for the healthcare provider who performs assessment and management of the most common medical crises in patients. Skills are sequenced and synthesized into simulations.	Prerequisites: None.	PME215 may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
PME216	International Trauma Life Support (ITLS)/Pre-Hospital Trauma Life Support (PHTLS) Refresher		Designed to meet International Trauma Life Support (ITLS) or Pre-Hospital Trauma Life Support (PHTLS) refresher requirements for the healthcare provider who performs assessment and management of various trauma conditions and environmental injuries. Skills are sequenced	Prerequisites: None.	PME216 may be repeated for credit.	Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and synthesized into simulations.				
PME221	Basic Level and Advanced Level Skills Course for the EMS Instructor and Examiner		Designed to provide an overview of the roles and responsibilities of basic level and advanced level instructors and examiners. Includes instructional strategies and methodologies, methods of evaluation, documentation of skill competency, and management strategies of emergency medical services (EMS) programmatic, state, and national scope of practice basic level and advanced level skills stations.	Prerequisites: None.	PME221 may be repeated for credit.	Occ	LEC 2.0 2.0 2.0
PME222	Advanced Cardiac Life Support (ACLS) Instructor Preparation		Designed to prepare Advanced Cardiac Life Support (ACLS) instructor candidates to deliver American Heart Association (AHA) instructor-led and blended learning courses. Provides an overview of the roles and responsibilities of the ACLS instructor. Includes instructional considerations, methods of evaluation, documentation of ACLS student skill competency, and ACLS Course management according to AHA guidelines.	Prerequisites: None.	PME222 may be repeated for credit.	Occ	LEC 2.0 2.0 2.0
PME223	Pediatric Advanced Life Support (PALS) Instructor Preparation		Designed to prepare Pediatric Advanced Life Support (PALS) instructor candidates to deliver American Heart Association (AHA) instructor-led and blended learning courses. Provides an overview of the roles and responsibilities of the PALS instructor. Includes instructional considerations, methods	Prerequisites: None.	PME223 may be repeated for credit.	Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of evaluation, documentation of PALS student skill competency, and PALS Course management according to AHA guidelines.				
PME240	Pharmacology in Paramedicine		Designed to provide an overview of the pathophysiologic principles of pharmacology, pharmacologic agents in the Paramedic scope of practice, and the practice of medication administration. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to integrate comprehensive knowledge of the pathophysiologic principles of pharmacology and pharmacologic agents to formulate a differential diagnosis and to implement a management plan for medical emergencies and trauma.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 3.0 5.0 5.0
PME245	Airway and Ventilatory Management in Paramedicine		Designed to prepare students to integrate knowledge of the respiratory system, comprehensive assessment practices, and pharmacologic agents to formulate a differential diagnosis and implement airway and ventilatory management plans for medical emergencies and trauma. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to perform comprehensive	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			assessment and techniques in the paramedic scope of practice for assuring airway patency, adequate mechanical ventilation, and respiration for all age groups.				
PME250	Comprehensive Patient Assessment in Paramedicine		Designed to provide an overview of comprehensive patient assessment. Develops psychomotor skills in the paramedic scope of practice. Integrates the pathophysiological significance of comprehensive assessment findings to formulate a differential diagnosis and implement a management plan for medical emergencies and trauma.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 3.0 3.0
PME251	Medical Emergencies in Paramedicine I		Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis, and pharmacology for respiratory and cardiovascular emergencies. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for respiratory and cardiovascular emergencies.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 4.0 8.0 8.0
PME252	Medical Emergencies in Paramedicine II		Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis, and pharmacology for various medical	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			emergencies. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for various medical emergencies.				
PME253	Medical Emergencies in Paramedicine III		Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis, and pharmacology for various medical conditions. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for gynecologic, obstetric, pediatric, and geriatric emergencies, neonatal care, and patients with special challenges.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 4.0 4.0 4.0
PME254	Technical Operations in Paramedicine		Designed to provide an overview of transport operations, incident management, multi-casualty incidents, extrication, special rescue, hazardous materials incidents, terrorism incidents, and disaster response. Examines the Paramedic's operational roles and responsibilities.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 2.5 3.0 3.0
PME260	Trauma Patient Management in Paramedicine		Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis, and	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			pharmacology for various trauma conditions. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for hemorrhage, soft tissue trauma, burns, face and neck trauma, head and spine trauma, chest trauma, abdominal and genitourinary trauma, orthopedic trauma, and environmental emergencies.				
PME270	Immersive Total Patient Management Experience (ITPME)		Designed to provide immersive-simulated live patient interactive out-of-hospital scenarios. This course creates an environment which facilitates incident stress inoculation and interdisciplinary collaboration.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 2.0 2.0 2.0
PME280	Preparation for Paramedicine Practicum		Designed to provide an overview of Emergency Medical Service (EMS) systems, safety and wellness, resiliency, health, medical/legal and ethical issues, EMS communications, documentation, and crime scene awareness. Examines the Paramedic's roles and responsibilities to assure personal, patient, and public health and safety in the provision of professional emergency care.	Prerequisites: Admission into the Paramedic Education Program.		Occ	LEC 1.0 1.0 1.0
PME281	Paramedicine Clinical Practicum: Comprehensive		Designed as the precepted Paramedicine clinical practicum in which the student synthesizes standard of care and scope of practice with	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 2.0 15.0 15.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical emergencies and trauma in a clinical setting.				
PME281AA	Paramedicine Clinical Practicum: Phase I		Designed as the precepted Paramedicine clinical practicum in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical emergencies and trauma in a clinical setting.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 7.5 7.5
PME281AB	Paramedicine Clinical Practicum: Phase II		Designed as the precepted Paramedicine clinical practicum in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical emergencies and trauma in a clinical setting.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 7.5 7.5
PME288	Paramedicine Comprehensive Field Internship Practicum		Designed as the precepted Paramedicine field internship in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology,	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 5.0 34.0 34.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			patient advocacy, ethical and professional behavior, critical thinking, decision-making, and patient management of medical emergencies and trauma in the out-of-hospital setting.				
PME289	Preparation for Paramedic National Credentialing		Designed to provide preparation for the national cognitive and psychomotor examinations, and other credentials required for national and state Paramedic certification/licensure.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 2.0 3.0 3.0
PME290	Advanced Life Support (ALS) Refresher		Designed to provide a refresher of Advanced Life Support (ALS) to meet national and Arizona Department of Health Services Bureau of Emergency Services and Trauma System (AzDHS/BEMSTS) requirements for Paramedicine recertification.	Prerequisites: None.	PME290 may be repeated for credit.	Occ	L+L 1.0 1.0 1.0
PME291	Community Health Paramedicine		Designed as the capstone Community Health Paramedicine experience in which the student synthesizes standard of care and expanded scope of practice with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, to practice patient-centered evidence-based paramedicine in the community setting.	Prerequisites: None.	PME291 may be repeated for credit.	Occ	L+L 8.0 11.0 11.0
PME292	Critical Care Paramedicine		Designed as the capstone Critical Care Paramedicine experience in which the student synthesizes standard of care and expanded scope of practice with comprehensive	Prerequisites: None.		Occ	L+L 8.0 11.0 11.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, to practice patient-centered evidence based paramedicine in the clinical, out-of-hospital, and inter-facility transport settings.				
PME293	Tactical Emergency Casualty Care (TECC)		Designed to provide strategies, skills, and simulations to decrease preventable death in the prehospital unstable environment according to National Association of EMTs (NAEMT) and Tactical Emergency Casualty Care (TECC) guidelines. Strategies include integration of rapid patient assessment with trauma patient management in tactical and hazardous environments. Promotes a common approach for the transition of rescue to patient care while limiting the risk of further casualties. Examines the impact of tactical and environmental factors on trauma patient management.	Prerequisites: None.	PME293 may be repeated for credit.	Occ	L+L 2.5 2.5 2.5
PME298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PME298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
PME298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
PMP120	Massage Therapy Basics		A massage basics course covering: sanitation, hygiene, safety, contraindications, ethics, healthy therapeutic relationships, professional communication, overview of the human body (integumentary, muscular, and skeletal systems), healthcare terminology, muscle theory, client care, self-care, and Swedish massage.	Prerequisites: Admission into the Massage Therapy program.		CLK	175
PMP121	Massage Therapy Advanced		Advanced anatomy and massage, focusing in	Prerequisites: PMP120 or		CLK	175

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			greater detail on the skeletal and muscular components and manipulations of the body. Students are taught all the bones and muscles of the body and introduced to the kinesiology that develops from their interactions. Deep tissue, Thai massage, and reflexology are introduced. Recently learned skills will be practiced on the public during clinic with coaching.	Program Manager's permission.			
PMP220	Massage Therapy Mastery I		An advanced anatomy and massage course focusing in detail on the skeletal and muscular components and manipulations of the upper body. Students will review the bones and muscles of the upper body and the kinesiology that develops from their interactions. Corresponding deep-tissue massage for the upper body is taught in conjunction with the advanced anatomy to ensure its practical application. Integration of deep tissue, Thai massage, myofascial, and structural massage are emphasized. Subjective, Objective, Assessment, Plan (S.O.A.P.) notes are introduced. The course concludes with two weeks of supervised clinic with coaching.	Prerequisites: PMP121 or Program Manager's permission.		CLK	175
PMP221	Massage Therapy Mastery II		An advanced anatomy and massage course focusing in detail on the skeletal and muscular components and manipulations of the lower body. Students will	Prerequisites: PMP220 or Program Manager's permission.		CLK	175

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			<p>review all of the bones and muscles of the lower body and the kinesiology that develops from their interactions.</p> <p>Corresponding deep-tissue massage for the lower body is taught in conjunction with the advanced anatomy to ensure its practical application. Students combine all of their program skills, integrating anatomy, kinesiology, concepts, theories, and techniques to properly assess clients and apply critical thinking in tailoring treatments to individuals with documentation.</p> <p>Clients with unique needs are covered such as athletes, expecting mothers, infants, older adults, obese individuals, people with disabilities, and end of life care. Persons with common injuries and conditions are also covered, teaching specific strategies and protocols to address them. Entrepreneurial skills conducive to the industry of massage therapy will continue to be reinforced while an exit plan is created for the student's entrance into the industry. The course concludes with two weeks of supervised clinic with coaching to gain practical experience working on the general public and applying the assessment/treatment approaches focused on in the course.</p>				
PNT101	Introduction to Painting-Decorating Trade		Orientation to the trade, apprentice responsibilities and professionalism, communication skills and	Prerequisites: Registered apprentice status or permission of		Occ	L+L 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			workplace behavior. Tools and equipment used in the trade. Preparation and application procedures of various types of surfaces, utilizing various types of materials used in the trade.	the Apprenticeship Coordinator.			
PNT102	Surface Preparation and Cleaning		Overview of surface preparation and cleaning, emphasis on materials, coating applications, various surface finishes, and safety procedures. Causes of paint failures and remedies. Also preparation procedures of plaster drywall, masonry and metal. Residential and commercial applications.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 4.0 4.0 4.0
PNT104	Wood and Decorative Finishes		Wood and decorative finishing techniques including glazing, antiquing, wood graining and marbelizing. Sanding techniques of hardwoods and softwoods including fillers, sealers, stains and finishes.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
PNT105	Painting and Drywalling Orientation		Overview of the painting and drywalling labor history, workplace performance, green construction, work place issues and sexual harassment.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
PNT106	Health and Safety for Drywall Finishers		Purpose and limitation of Material Safety Data Sheet (MSDS). Occupational Safety and Health Administration (OSHA). Common safety and fall hazards. Requirements for erecting and dismantling scaffolds.	Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
PNT107	Introduction to the Drywall Trade		Basic terminology and tools used in the drywall trade. Exhibiting	Registered apprentice status or		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professionalism in the trade in appearance, dealing with difficult customers, following workplace protocol and procedure.	permission of the Apprenticeship Coordinator.			
PNT108	Materials of the Drywall Trade		Characteristics of drywall panels, types of fillers and proper lighting requirements. Surface preparation, ventilation and materials handling.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
PNT109	Tools of the Drywall Trade		Selection, use, maintenance and safety procedures for common tools of the drywall trade.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
PNT118	OSHA Standards and Regulations	ABC118	Provisions of and implementation of Occupational Safety and Health Administration (OSHA) Act in the work place. Rights and responsibilities under the OSHA Act. Appeals process, record keeping, and voluntary protection programs. OSHA's construction and general industry standards. Overview of the requirements of the more frequently referenced standards.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.5 1.5 1.5
PNT120	Basic Calculations for Construction	ABC120 MEC120	Addition, subtraction, multiplication and division of whole, decimal, fraction and metric numbers. Percentage and fraction conversions. Metric units of length, weight, volume and temperature. Metric system as it relates to the construction trade. Basic algebra and geometry operations and equations. Area and	Prerequisites: None.		Occ	L+L 1.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			volume calculations of shapes.				
PNT121	Introduction to Hand and Power Tools	ABC121 MEC121	Overview of the use, maintenance and safety procedures for common hand and power tools.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
PNT123	Introduction to Blueprints		Basic concepts of blueprints, including terms and symbols, grid line systems and blueprint production techniques. Dimensions and blueprint reading	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
PNT150	Construction Foreman	IND150	Examine the basic supervisory and leadership concepts and skills needed to manage a construction project. Includes basic theories of motivation, role of communications in construction project management, decision making process, planning and organizing, strategies, developing production schedules to control production, discussing accident prevention and loss control	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
PNT201	Coverings and Blasting		Application, installation, and estimating procedures for wallcoverings including abrasive and wet blasting guidelines and systems.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
PNT202	Spray Painting		Operating and maintenance procedures for spray painting equipment and materials. Use of specialized painting systems and equipment. Application procedures	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			for special coatings and parking lots.				
PNT203	Non-Spray Application of Coatings		Best practices in the application of stain, clear coat, and wood finish application on wood substrates.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
PNT205	Paints, Coatings and Materials		Coating products and solvent type and compatibility following Product Data Sheet and Material Safety Data Sheet for products. Including common failures, causes and corrections, weatherization, properties and functions of paints or coatings.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
PNT208	Filling, Taping and Sanding Applications		Characteristics of fillers, filling compounds, drying times. Taping techniques including taping and wiping procedures, tools and equipment. Functions and operations of boxes and fasteners as well as sanding application and bead and trim installation.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 4.0 4.0 4.0
PNT209	Automatic Taping Tools of the Drywall Trade		Inspection and maintenance procedures for keeping automatic taping tools in proper working condition.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0
PNT210	Advanced Drywall Applications and Systems		Methods for making repairs, mixing procedures, and recognizing common defects in drywall finishing and wallboards. General texture spraying techniques and basics of Exterior Insulated and Finish Systems (EIFS) and Expanded Polystyrene (EPS).	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PNT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
PNT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites:		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
PNT296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
PNT296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE	average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
PNT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
PNT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
PNT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
PON105	Surgical Technology for the Operating Room Nurse		Direct observation of principles and culture of operating room. Traffic patterns, aseptic techniques, roles, professional surgical team work, case management, perioperative record, instrument handling, safety precautions with regard to exposure, surgical attire, surgical regimen and chain of command.	Acceptance into the Surgical Technology for the Operating Room Nurse Program, or permission of Department or Division.		Occ	L+L 2.0 2.0 2.0
PON210	PeriOperative Principles I		Role and responsibilities of the professional nurse in the perioperative setting. Team concepts, patient care, nursing process and impact of quality assurance. Role	Prerequisites: Acceptance into the Surgical Technology for the Operating		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of Association of Operating Room Nurse Standards of Practice.	Room Nurse program or permission of Department or Division. Corequisites: PON214.			
PON212	PeriOperative Principles II		Common pathogenic organisms and methods of sanitation/sterilization. Instruments, procedures intervention measures related to the operating room. State and Federal regulating agencies. Moral and ethical issues.	Prerequisites: A grade of C or better in PON210 or permission of Department or Division. Corequisites: PON214.		Occ	LEC 3.0 3.0 3.0
PON214	PeriOperative Laboratory		Practical application of perioperative nursing. Aseptic technique. Scrubbing, gowning, gloving, instrumentation, and maintenance of a sterile field. Accountability emphasized.	Prerequisites: Acceptance into the Surgical Technology for Operating Room Nurse Program. Corequisites: PON210 and PON212.		Occ	LAB 4.0 9.5 9.5
PON218	PeriOperative Clinical Practice I		Application of the nursing process in care of surgical patients during the perioperative period. Statements of competency established by the Association of Operating Room Nurses.	Prerequisites: A grade of C or better in PON214.		Occ	LAB 3.0 15.0 0.0
PON220	PeriOperative Clinical Practice II		Application of the nursing process in care of surgical patients during the perioperative period. Statements of competency established by the Association of Operating Room Nurses.	Prerequisites: A grade of C or better in PON214 or permission of Department or Division.		Occ	LAB 3.0 15.0 0.0
PON230	Surgical Technology Materials Update	SGT230	Current surgical technology materials. Surgical specialty modifications, introductions, technology. Specific uses, handling, application to surgical procedures.	Prerequisites: Currently enrolled in Surgical Technology or Surgical Technology for the Operating Room Nurse program, or Certified Surgical		Occ	LEC 2.0 2.0 2.0 LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Technologist, or permission of Program Director.			
PON296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
PON296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
PON296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
PON296W D	Cooperative Education		Work-college experiences that involve the combined efforts of	Prerequisites: Completion of at least		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
PON298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
PON298AB	Special Projects		Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of Program		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Director or Instructor.			
PON298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
POR101	Elementary Portuguese I		Basic grammar, pronunciation, and vocabulary of the Portuguese language. Includes study of Lusophone culture. Practice in listening, speaking, reading, and writing skills	Prerequisites: None.		Acad	L+L 5.0 6.0 6.0
POR102	Elementary Portuguese II		Continued study of basic grammar, pronunciation, and vocabulary of the Portuguese language. Includes study of Lusophone cultures and practice in listening,	Prerequisites: A grade of C or better in POR101 or permission of Department or Division. Completion		Acad	L+L 5.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			speaking, reading and writing skills	of prerequisites within the last three years is required.			
POR201	Intermediate Portuguese I		Review of essential grammar of the Portuguese language and study of the Portuguese cultures. A continued practice and development of reading, writing, and speaking skills. Emphasis on both fluency and accuracy in the spoken language.	Prerequisites: A grade of C or better in POR102 or permission of the Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 5.0 6.0 5.7
POR296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
POR296W B	Cooperative Education		Work-college experiences that involve the combined efforts of	Prerequisites: Completion of at least		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			educators and employers to accomplish an outcome related to the career objectives of the students.	twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
POR296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to student's major or career interest or with permission of the Instructor.			
POR296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0
POR298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
POR298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
POR298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
POS100	Introduction to Political Science		Introduction to the discipline of political science and its relation to other disciplines with emphasis on the major philosophies and	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			institutions of government.		Sciences - [SB]		
POS101	Current Issues		Introduction to current issues in politics, economics, social relations, foreign affairs. Presentations by local, state and national civic and cultural leaders.	Prerequisites: None.	POS101 may be repeated for a total of two (2) credit hours.	Acad	LEC 1.0 1.0 1.0
POS110	American National Government		Study of the historical backgrounds, governing principles, and institutions of the national government of the United States.	Prerequisites: None.	Arizona Shared Unique Number SUN#: POS 1110	Acad	LEC 3.0 3.0 3.0
POS113	United States and Arizona Social Studies	GCU113	Overview of government, history, and geography of the United States and Arizona. Includes the relationship of government to the United States economic system as well as the influences and developments that have shaped U.S. and Arizona history. Also covers geographical systems, regions, and study techniques.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
POS114	World Social Studies		Introduction to the world from the integrated social science perspectives of history, geography, and government.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Historical Awareness - [H] General Education Designation : Social-Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
POS115	Issues in American Politics		Examination of major issues in current affairs in the fields of politics, economics, social relations, foreign affairs,	Prerequisites: A grade of C or better in ENG101 or	Course Attribute(s): General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			aesthetics, and others through the reading and viewing of secondary information sources	ENG107 or equivalent.	: Literacy and Critical Inquiry - [L] General Education Designation : Social and Behavioral Sciences - [SB]		
POS120	World Politics		Introduction to the principles and issues relating to the study of international relations. Evaluation of the political, economic, national, and transnational rationale for international interactions	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: POS 1120	Acad	LEC 3.0 3.0 3.0
POS125	Issues in World Politics		Contemporary issues and factors in international relations. Stress conditions in civil order, trade, and international institutions.	Prerequisites: None.	POS125 may be repeated for a total of six (6) credit hours. Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
POS130	State and Local Government		Survey of state and local government in the United States. Special	Prerequisites: None.	Course Attribute(s): General Education	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			attention on Arizona State government.		Designation : Social and Behavioral Sciences - [SB]		
POS140	Comparative Government		Overview and evaluation of the sub-field of comparative politics. Covers various national governments from around the world: their structure, system, method of governance. Examines methods of assessing these governments	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: POS 2204	Acad	LEC 3.0 3.0 3.0
POS180	United Nations Studies		Historical origins, structural makeup, political and operational characteristics, and legal activities of the United Nations. Analysis of the overall institution's ongoing utility, productivity and creativity.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Acad	L+L 3.0 3.0 3.0
POS210	Political Ideologies		Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
POS220	U.S. and Arizona Constitution		Examination of the United States Constitution and the constitution and government of the State of Arizona.	Prerequisites: None.	Students may not enroll in POS220 and POS222 concurrently.	Acad	LEC 3.0 3.0 3.0
POS221	Arizona Constitution		Examination of the Constitution of the State of Arizona. Equivalent to the second part of POS220. May not enroll	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			in POS220 and POS221 concurrently				
POS222	U.S. Constitution		Examination of the United States Constitution. Equivalent to the first part of POS220.	Prerequisites: None.	Students may not enroll in POS220 and POS222 concurrently.	Acad	LEC 2.0 2.0 2.0
POS223	Civil Rights and Liberties		The historic background and current status of major civil rights and civil liberties issues in the United States.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
POS281AB	Public Policy/Service Internship		Field experience in community service, public policy or public service.	Prerequisites: Minimum of 15 credit hours at college granting internship with minimum GPA of 3.0 and permission of Instructor.	POS281AB may be repeated for a total of nine (9) credit hours; may not repeat specific internship assignment.	Acad	LAB 3.0 3.0 0.0
POS282AA	Volunteerism for Political Science: A Service Learning Experience		Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency.	Prerequisites: Permission of Instructor.	POS282AA may be repeated for a total of four (4) credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog	Acad	LAB 1.0 1.0 0.0
POS282AB	Volunteerism for Political Science: A Service Learning Experience		Service-learning field experience within government agencies, political organizations, citizen advocacy groups,	Prerequisites: Permission of Instructor.	POS282AB may be repeated for a total of four (4) credit	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and human service organizations/agency.		hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog.		
POS282AC	Volunteerism for Political Science: A Service Learning Experience		Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency.	Prerequisites: Permission of Instructor.	POS282AC may be repeated for a total of four (4) POS282 credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
POS285	Political Issues and Public Policy		Introduction to public policy, how policy is made, and how public policy decisions are affected.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	L+L 3.0 3.0 3.0
POS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to	Prerequisites: Completion of at least twelve (12) college credits		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the career objectives of the students.	minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
POS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career interest or with permission of the Instructor.			
POS296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
POS296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
POS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
POS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development. COMMON COMPETENCY COURSE				
POS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
PPT101	Hand and Power Tools		Identification and use of hand and hand-held power tools used in a power plant. Tool construction and purpose. Maintenance of hand and power tools	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
PPT103	Print Reading and Plant Drawings		Introduction to print reading and plant drawings. Flow diagrams and symbols on drawings. Dimension, tolerance and clearance on drawings. Amendments to drawings. Specific types of drawings. Proper procedures when using plant drawings	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
PPT107	Lubrication		Principles, properties, and safe handling requirements of lubricants. Lubrication of bearings, lubrication systems, and system components. Oil settling systems. Construction, operation, and maintenance of oil purifiers	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
PPT108	Turbines		Operations, steam properties, energy	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			transfer, parts, and types of turbines. Components and function. Turbine maintenance for oil and hydraulic systems, inspection of casings, nozzles and rotors. Turbine alignment and the tightening of joints using appropriate tools and equipment				
PPT112	Principles of Machining		Safety practices, machining methods, and principles of material removal. Types of cutting tools, lathe, milling, drill, and bandsaw components. Principles of operation of specific machines found in the machine shop including turning, milling, drilling and cutting machines	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PPT114	Drive and Gear Components		Terminology, identification and inspection of the component parts of a drive and gear system. Operation, maintenance and inspection of couplings, clutches, brakes, belt drives, chain drives, shafts and gears. Operation and configurations of variable speed drives	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
PPT115	Hydraulics and Pneumatics		Hydraulic and pneumatic safety, physical concepts, and fluid laws. Hydraulic and pneumatic system components and operation. Troubleshooting procedures of hydraulic and pneumatic systems	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
PPT117	Forklift Operations		Safe and proper operation of forklift. Parts and function of forklift, principles of operation, and safety precautions. Inspection procedures, proper care, and industry standards. On-hands operation of a forklift	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PPT118	Conduct of Maintenance		Safety and management expectations. Defense in Depth strategy and Conduct of Verifications. Maintenance procedures. Work control process. Performance of work standards and documentation including pre-job preparation, pre-job notification, job review, job verification and job close out specific to nuclear power plant operations	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
PPT119	Instrument Air Compressor Maintenance		Purpose, function, and identification of system drawings. Identification of major components. Instrument air compressor components and function. Air flow operations. Free air unloader components and function. Fluids and flow paths. Compressor cooling water and lubricating oil. Inspection and repair of parts. Troubleshooting	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
PPT120	Energy Industry Fundamentals		Various types of energy and their conversion to useable energy such as electrical power. How generated electrical power is transmitted and distributed to the point of use.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PPT121	Power Plant Components		Theory, construction and application of basic power plant mechanical components. Basic concepts of electrical fundamentals and electronics discussed.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
PPT124	Power Systems Components I		Principles, properties, and safe handling requirements of lubricants. Lubrication of bearings, lubrication systems, and system components. Oil settling systems. Construction, operation, and maintenance of oil	Prerequisites: None.	PPT124 may be repeated for credit.	Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			purifiers. Terminology, identification and inspection of the component parts of a drive and gear system. Application, inspection, maintenance, and failure modes of plant bearings. Design and operation of sliding and anti-friction bearings and seals.				
PPT126	Power Systems Components II		Functional components of turbines, including parts, steam properties and maintenance of oil and hydraulic systems. Heat exchanger theory, including types, operations, and maintenance of heat transfer systems. Operational principles of pneumatic and hydraulic valve actuators, including modulation control terminology and inspection testing.	Prerequisites: None.	PPT126 may be repeated for credit.	Occ	L+L 3.0 3.0 3.0
PPT128	Power Systems Components III		Hydraulic and pneumatic safety, physical concepts, and fluid laws. Hydraulic and pneumatic system components and operation. Troubleshooting procedures of hydraulic and pneumatic systems. Mechanical component types and characteristics, common failure mechanisms, and operating principles of plant components.	Prerequisites: None.	PPT128 may be repeated for credit.	Occ	L+L 3.0 3.0 3.0
PPT170	Instrumentation and Process Control		Principles and practices of instrumentation and process control systems used in industry. Topics cover the proper installation, troubleshooting, repair, and maintenance of various industrial process instrumentation (temperature, pressure, level, flow, etc.) and control circuits.	Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/ Division Chair.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PPT202	Power Plant Systems I		Components and function of reactor coolant, volume control, safety injection, and nuclear sampling systems. Function and operation of main steam and turbine systems, main and auxiliary feedwater systems, pressurizer, control rod drive, and recirculation systems. Operation and function of steam and heater drain systems. Reactor plant safety concepts.	Prerequisites: A grade of C or better in PPT120 and PPT121, or permission of Program Director.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Occ	LEC 3.0 3.0 3.0
PPT203	Power Plant Systems II		Advanced plant systems. Water, electrical and cooling systems. Safe shutdown cooling water system. Waste drain system. Fuel handling and storage systems. Fuel pool cooling and cleanup. Purpose and operation of radioactive waste management. Service air and gas systems. Ventilation and fire protection systems. Containment, Containment Spray, Emergency Core Cooling, Emergency Power, Environmental Monitoring, Off-gas, Post-accident, Radiation Monitoring, Residual Heat Removal, and Suppression Pool systems.	Prerequisites: A grade of C or better in PPT120 and PPT121, or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
PPT204	Measuring and Test Equipment		Administrative controls for precision measurement. Use of precision measuring equipment. Emphasis on proper use, accurate reading, and calculations using precision measuring devices	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
PPT205	Rigging		Safe and proper operation of lifting equipment. Weight calculations. Identification and proper	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			location of rigging equipment. Hand signals and industry standards. Safe rigging practices. Inspection and maintenance procedures. Operation of pendant cranes				
PPT206	Bearings		Application, inspection and maintenance of plant bearings. Design and operation of sliding and anti-friction bearings. Function, design and applications of bearing seals. Reasons for bearing failure and related preventative maintenance procedures	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
PPT207	Heat Exchangers		Heat exchanger theory including heat transfer and operating principles. Classification of heat exchangers including types, construction, and operation. Inspection of heat exchangers. Cleaning of exchanger tubes and shells. Cleaning of component parts. Troubleshooting tubes. Maintenance of exchangers	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
PPT209	Pipefitting Auxiliaries II		Purpose, terminology and system stress factors related to piping systems. Principles of fluid flow, and piping inspection procedures. Fabrication and installation of tubing materials, specific joints, and flanges. Basic piping system component maintenance, rework and installation procedures	Prerequisites: A grade of C or better in PPT109.		Occ	LEC 2.0 2.0 2.0
PPT210	Valve Maintenance II		Fundamentals of hand lapping. Dexter and Unislip resurfacing tools. Valve packing: purpose, components and specifications. Valve survey data sheet. Procedure for field	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			manufacture of die-formed packing rings. Function of the Optical Flat. Valve inspection. Gaskets and torquing techniques.				
PPT211	Couplings		Types, functions, and specific applications of couplings. Coupling removal and inspection procedures. Coupling rework and installation	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
PPT212	Control Valves and Actuators		Modulating control terminology. Disassembly, inspection and assembly processes. Construction and operation of specific actuators. Maintenance of pneumatic and hydraulic valve actuators. Principles of operation, inspection and testing of control valves. Bench testing	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
PPT213	Pumps II		Rotary, reciprocating and centrifugal pump operation. Positive displacement and metering pump operation. Diaphragm pulsafeeder operation. Disassembly, inspection and reassembly of radially and axially split centrifugal pumps. Troubleshooting and lab safety	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PPT214	Machine Alignment		Calculations and practical lab exercises using alignment principles. Determination of indicator sag and thermal growth. Obtaining readings for alignment or misalignment. Rim- face method of alignment stressed and practiced	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
PPT215	Relief and Safety Valves		Concepts of pressure and pressure measurement. Components and operation of rupture discs, relief valves, and	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			safety valves. Maintenance procedures				
PPT218	Lathe Operations		Safe and proper operation of the lathe. Component and accessories and their functions. Cutting tools and methods. Processes of machining including mounting, aligning, knurling, grooving, turning, thread cutting, drilling, reaming boring, and tapping. Machining techniques using a chuck	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
PPT219	Milling Machine Operations		Components of horizontal and vertical milling machines. Common milling machine accessories and cutters. Cutting speeds, feeds and depths for materials and cutters. Machine set up and operations. Common cutter failure. Operation of horizontal and vertical milling machines. Milling safety	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
PPT220	Heat Transfer and Fluid Flow		Course covers topics in heat transfer, fluid flow and thermodynamics. Topics include the properties of fluids, modes of heat transfer, and the energy relationships in fluid systems.	Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/ Division Chair.		Occ	LEC 3.0 3.0 3.0
PPT221	Reactor Theory		Basic nuclear reactor theory to include atomic and nuclear physics, thermodynamics, and heat transfer and fluid flow.	Prerequisites: A grade of C or better in PPT120 and GTC108, or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
PPT222	Reactor Plant Chemistry and Materials		Basic nuclear reactor theory to include reactor chemistry, water chemistry, radiation detection and protection	Prerequisites: A grade of C or better in PPT120 or permission of		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			principles, and reactor plant materials.	Program Director.			
PPT224EI	Components for Maintenance Technicians		Electrical component types and characteristics, such as circuit breakers and fuses, instrumentation schematics, protective relaying, and inverters.	Prerequisites: A grade of C or better in PPT202 or PPT203, or permission of Program Director.		Occ	LEC 1.0 1.0 1.0
PPT224EM	Electrical Components for Maintenance Technicians		In-depth reading and troubleshooting of electrical engineering and vendor prints. Operation and control of emergency power systems. Diesel Generators will also be covered.	Prerequisites: A grade of C or better in PPT202 or PPT203, or permission of Program Director.		Occ	LEC 1.0 1.0 1.0
PPT224MM	Mechanical Components for Maintenance Technicians		Mechanical component types and characteristics, common failure mechanisms, and operating principles of plant components.	Prerequisites: A grade of C or better in PPT202 or PPT203.		Occ	LEC 1.0 1.0 1.0
PPT225	Industrial Plant Chemistry and Materials		Fundamentals of industrial chemistry and materials to include chemistry principles, water chemistry control, cooling water chemistry, chemical hazards, and material science.	Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/ Division Chair.		Occ	LEC 3.0 3.0 3.0
PPT230	Nuclear Plant Systems		Operation, components, instrumentation and controls, automatic features, and precautions and limitations of nuclear plant systems.	Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/ Division Chair.		Occ	LEC 3.0 3.0 3.0
PPT235	Nuclear Physics		Course provides a foundation for understanding atomic and nuclear physics, neutron characteristics,	Prerequisites: A grade of C or better in college-level math course,		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			reactor theory, reactor operation, and radiation fundamentals.	or appropriate District placement, or permission of Department/ Division Chair.			
PPT242	Components for Maintenance Technicians		Electrical component types and characteristics, such as circuit breakers and fuses, instrumentation schematics, protective relaying, and inverters. In-depth reading and troubleshooting of electrical engineering and vendor prints. Operation and control of emergency power systems. Diesel Generators will also be covered.	Prerequisites: A grade of C or better in (ELC119 and ELC120) or permission of Program Director.		Occ	L+L 2.0 2.0 2.0
PPT250	Power Plant Position Preparation		Prepares students for the Power Plant Maintenance Positions Selection System (MASS) examination. Reading comprehension, mechanical concepts, spatial ability, and mathematical usage.	Prerequisites: None.	PPT250 may be repeated for a total of four (4) credit hours.	Occ	LEC 2.0 2.0 2.0
PPT255	Fossil Systems		Upon completion, the student will be able to explain how fossil plant systems operate in accordance with reference materials.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
PPT270AA	Power Systems Technology Internship		Work experience in power plant industry and / or related field. Five (5) hours of work weekly. Approval, supervision and evaluation by an internship coordinator.	Prerequisites: Permission of Department or Division.		Occ	L+L 1.0 5.0 0.0
PPT270AB	Power Systems Technology Internship		Work experience in power plant industry and / or related field. Ten (10) hours of work weekly. Approval, supervision and evaluation by an internship coordinator.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PPT270AC	Power Systems Technology Internship		Work experience in power plant industry and / or related field. Fifteen (15) hours of work weekly. Approval, supervision and evaluation by an internship coordinator.	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 15.0 0.0
PPT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
PPT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
PPT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
PSA301	Foundations of Public Safety Administration		Foundation in the principles and study of public safety administration including legal, political, and social factors. Overview of organizational theory and management, human capital management, resource management, leadership, and ethics that guide administration of diverse public safety organizations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PSA305	Communication Strategies for Public Safety Professionals		Overview of communication and public relations for public safety professionals. Topics include organization's internal and external environment and identifying and addressing public relations situations that emerge in these environments including the use of social media and other news media channels. Emphasis on developing, implementing, and evaluating public relations plans and strategies.	Prerequisites: A grade of C or better in [(COM100, or COM110, or COM230, or COM225) and (ENG102 or ENG108)] or permission of Program Director or Department/ Division.		Occ	LEC 3.0 3.0 3.0
PSA310	Research Methods for Public Safety Administration		Overview of research methods and presentation of research results for public safety administration.	Prerequisites: A grade of C or better in [(ENG102 or ENG108),		Occ	L+L 4.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Introduction to quantitative and qualitative methods including statistics for conducting and analyzing discipline-specific research within the fields of public safety.	and (MAT14+, or MAT15+, or equivalent), and [MAT206, or PSY230, or (PSY230 and PSY231), or PSY230WL]], or permission of Instructor or Program Director or Department/ Division Chair.			
PSA315	Public Policy and Public Safety Organizations		Overview of public policy as it relates to the administration and management of public safety organizations. Topics include the political environment, laws and regulations, and the interrelationship among law, regulations, budget and finance, and public policy. Focus on current issues surrounding public administration and bureaucracy, as well as how public constituencies can affect public policy decision-making.	Prerequisites: A grade of C or better in [PAD100 and (ENG102 or ENG108)], or permission of Instructor or Program Director or Department/ Division Chair.		Occ	LEC 3.0 3.0 3.0
PSA320	Human Capital Management for Public Safety Organizations		Examination of the role and functions of human capital management in public safety organizations including recruitment, hiring, retention, and training. Focus on the impact and intersections of strategic planning, employee benefits and compensation, personnel issues, performance management, employment laws, labor relations, and responding to internal and external inquiries as	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			it relates to the administration of public safety organizations.				
PSA398AA	Special Topics in the Public Safety Administration		Explores special topics including current issues within the field of public safety administration. Focuses on examination and investigation of existing and innovative program solving techniques also related to the field.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
PSA398AB	Special Topics in the Public Safety Administration		Explores special topics including current issues within the field of public safety administration. Focuses on examination and investigation of existing and innovative program solving techniques also related to the field.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
PSA398AC	Special Topics in the Public Safety Administration		Explores special topics including current issues within the field of public safety administration. Focuses on examination and investigation of existing and innovative program solving techniques also related to the field.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PSA401	Public Safety Leadership		Examines the nature and roles of leadership in public safety, including concepts of organizational culture, leadership principles, and management strategies unique to public safety organizations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PSA405	Public Safety Finance and Budget		Overview of the public finance system at all levels of government as it relates to the development of a budget for a public safety department. Topics include state and local budget process, revenue and funding sources involving taxes and revenue forecasting, as well as capital planning,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			projects, and budgets related to public safety. The course will consider alternative sources of public safety funding available to local government entities and stewardship of funds.				
PSA410	Program Planning and Evaluation for Public Safety Organizations		Focus on knowledge and skills required of public safety leaders in strategic planning for the design, development, implementation, and evaluation of social intervention initiatives related to public safety, health, and disaster management. Exploration of theories related to public services considered in the development of programs, the application of evaluation findings, and prioritization of community concerns and resources.	Prerequisites: A grade of C or better in PSA310 or permission of Instructor or Program Director or Department/ Division Chair.		Occ	LEC 3.0 3.0 3.0
PSA439	Critical Incident Management for Public Safety Professionals		In-depth examination of the process of critical incident management for supervisors, encompassing a variety of events that impact public safety organizations. Focus on the four phases of emergency management in relation to critical incident management.	Prerequisites: A grade of C or better in (AJS/FSC147 and AJS/FSC148) , or permission of Program Director or Department/ Division Chair. Prerequisites or Corequisites: AJS/FSC149 or permission of Program Director or Department/ Division Chair.		Occ	LEC 3.0 3.0 3.0
PSA449	Strategic Hazard Mitigation		In-depth examination of the process of strategic hazard mitigation for supervisors,	Prerequisites: A grade of C or better in PSA439 or		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			encompassing a variety of events that impact Public Safety Organizations. Focus on mitigation planning to address community risks and vulnerabilities including the stakeholders involved and strategies employed to improve community resilience.	permission of Program Director or Department/ Division Chair.			
PSA450	21st Century Public Safety Practices		Examination of emerging trends in public safety administration and organizational responsiveness through policy and practice. Topics include an overview of public safety administration, components of ethical leadership, sustainable and evolving practices, internal and external influences on policy, technology, effective data collection, and strategic planning to address societal and cultural changes in the community and workforce.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
PSA460	Crime Scene Coordination for Public Safety Professionals		Overview of the crime scene logistics needed to effectively coordinate the work of law enforcement officers, police dispatch, forensic science services personnel, emergency medical personnel, and others present during crime scene investigations.	Prerequisites: A grade of C or better in AJS275, or LET225, or permission of Program Director or Department/ Division Chair.		Occ	LEC 3.0 3.0 3.0
PSA470	Administrative Law for Public Safety Professionals		Introduction to the basic principles of administrative law for public safety professionals including the structure of federal, state, and local administrative institutions. Topics include the sources of law for administrative	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			agencies, the basic procedures for administrative rulemaking, adjudication, and compliance, as well as judicial review of agency action.				
PSA490	Public Safety Administration Capstone		Completion of a professional project within the field of public safety administration applying concepts covered throughout the program. Students will demonstrate the steps for issue identification, related research, analysis, and presentation of information. Project topics will follow an instructor approval process.	Prerequisites: Permission of Program Director or Department/ Division Chair.		Occ	L+L 3.0 4.0 4.0
PSG140	Respiratory Care Fundamentals and Physiology for Polysomnography		Introduction to the development and implementation of prescribed care plans for sleep-related breathing disorders. Administration of basic respiratory therapeutic modalities for sleep-related breathing disorders and non-invasive assisted breathing. Use and maintenance of all forms of positive airway pressure therapy with specific knowledge of how algorithms function when using advanced positive pressure therapies. Basic respiratory physiology as it relates to sleep-related breathing disorders.	Prerequisites: Admission to the Polysomnographic Technology program.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0
PSG150	Introduction to Sleep Medicine		Introduction to the fundamental concepts of polysomnography, sleep technology and sleep medicine. Emphasis on nomenclature, technical and medical roles, normal sleep, sleep disorders, and professional	Prerequisites: Admission into the Polysomnographic Technology program. Corequisites: PSG150LL.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			organizations and resources.				
PSG150LL	Introduction to Sleep Medicine Laboratory		Introduction to the fundamental concepts of polysomnography, sleep technology and sleep medicine in the laboratory setting. Emphasis on nomenclature, technical and medical roles, normal sleep, sleep disorders, and professional organizations and resources.	Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG150.		Occ	LAB 1.0 3.0 3.0
PSG160	Polysomnographic Procedures		Practical application of clinical procedures germane to the performance of polysomnography. Emphasis on patient assessment and communications, pre-test preparations, patient hook-up, instrument calibration and operation, test termination, cleanup and troubleshooting.	Prerequisites: Admission into the Polysomnographic Technology program. Corequisites: PSG160LL.		Occ	LEC 2.0 2.0 2.0
PSG160LL	Polysomnographic Procedures Laboratory		Practical application of clinical procedures germane to the performance of polysomnography. Emphasis on patient assessment and communications, pre-test preparations, patient hook-up, instrument calibration and operation, test termination, cleanup and troubleshooting.	Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG160.		Occ	LAB 1.0 3.0 3.0
PSG165	Clinical Polysomnographic I		Introduction to a sleep disorders center, observation of a center conducting polysomnography, and participation in performance of associated procedures. Emphasis on patient preparation, testing protocol, instrument calibration and	Prerequisites: Admission into the Polysomnographic Technology program.		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			operation, documentation, and patient interactions				
PSG170	Sleep Therapeutics		Review of sleep therapies to include medical treatment of insomnia, hypersomnia, restless legs syndrome, periodic limb movement disorder, rapid eye movement sleep behavior disorder, parasomnias, and the use of positive airway pressure therapy and/or oxygen therapy to treat sleep-disordered breathing.	Prerequisites: Admission into the Polysomnographic Technology program. Corequisites: PSG170LL.		Occ	LEC 2.0 2.0 2.0
PSG170LL	Sleep Therapeutics Laboratory		Perform sleep therapies to include medical treatment of insomnia, hypersomnia, restless legs syndrome, periodic limb movement disorder, rapid eye movement sleep behavior disorder, parasomnias, the use of positive airway pressure therapy and/or oxygen therapy to treat sleep-disordered breathing.	Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG170.		Occ	LAB 1.0 3.0 3.0
PSG250	Record Scoring		Polysomnographic record scoring including visual, arousal, cardiac, movement, and respiratory scoring rules outlined by the American Academy of Sleep Medicine. Polysomnogram report generation and calculations, technical and digital specifications, multiple sleep latency test/maintenance of wakefulness test scoring and reporting, and archive and data storage, abnormal polysomnographic record events, and artifact recognition.	Prerequisites: Admission into the Polysomnographic Technology program. Corequisites: PSG250LL.		Occ	LEC 2.0 2.0 2.0
PSG250LL	Record Scoring Laboratory		Polysomnographic record scoring including visual, arousal, cardiac, movement, and	Prerequisites: Admission to the Polysomnogr		Occ	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			respiratory scoring rules outlined by the American Academy of Sleep Medicine (AASM). Polysomnogram report generation and calculations, technical and digital specifications, multiple sleep latency test/maintenance of wakefulness test scoring and reporting, and archive and data storage, abnormal polysomnographic record events, and artifact recognition.	aphic Technology program. Corequisites: PSG250.			
PSG260	Special Topics in Polysomnography		Specialized techniques, equipment and procedures used in polysomnography. Emphasis on infant, pediatric and geriatric populations, disabled and emotionally/mentally challenged, Polysomnograms with legal implications, research, and less commonly performed procedures.	Prerequisites: Admission into the Polysomnography Technology program.		Occ	LEC 2.0 2.0 2.0
PSG265	Clinical Polysomnography II		Participation in clinical polysomnography testing. Emphasis on patient preparation, troubleshooting, therapeutics, proper documentation, record review, scoring and report generation.	Prerequisites: Admission into the Polysomnography Technology program.		Occ	LAB 2.0 10.0 0.0
PSG275	Clinical Polysomnography III		Clinical polysomnography testing. Emphasis on independent function and decision making, time management, record review, scoring and report preparation.	Prerequisites: Admission into the Polysomnography Technology program.		Occ	LAB 3.0 15.0 0.0
PSG282AA	Volunteerism for Polysomnographic Technology: Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	PSG282AA may be repeated for a total of six (6) credit hours. Standard grading	Occ	LAB 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					available according to procedures outlined in catalog.		
PSY101	Introduction to Psychology		Overview of the study and methods of psychological science. Includes an introduction to subfields such as biopsychology, learning, memory, development, social, and psychological disorders.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
PSY102	Introduction to Psychology Lab		Optional laboratory designed to accompany PSY101. Application of psychological principles in areas such as learning, memory, emotion, motivation, cognition, language, development, personality, and intelligence.	Prerequisites: A grade of C or better in PSY101 or Corequisites: PSY101 or permission of Instructor.		Acad	LAB 1.0 1.0 1.0
PSY123	Psychology of Parenting		The demonstration and application of psychological principles to parenting and the development and guidance of children and adolescents.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
PSY132	Psychology and Culture		Presents current knowledge about human diversity in behavior and culture using examples from a variety of contexts within western and global societies. Highlights topics in cross-cultural psychology, such as intergroup relations, diverse cognitive styles, ethnocentrism, gender, personality, emotion, language, communication, work and health. The role of enculturation throughout the lifespan will be explored to increase awareness of how	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			behavioral and cognitive principles affect interactions in a multicultural world.				
PSY143	Psychology of Sexual Orientation and Gender Identity		Introduction to the psychological study of sexual orientation and gender identity. Focus on psychological, developmental, social, biological, historical, and cultural aspects. Includes topics related to the recognition and development of sexual orientation and gender identity throughout the lifespan and lived experiences of LGBTQIA+ individuals and communities. Examines prejudice, discrimination, family dynamics, contributions, and current issues impacting LGBTQIA+ individuals, their allies, and communities.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
PSY156	Understanding Death and Dying		Designed to give the student an understanding of the research and theories of death, dying, bereavement process, and aspects of end-of-life care and decision-making.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social-Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
PSY157	African/Black Psychology		Historical overview of the development of Black Psychology and the African-American "frame of reference." Includes topics such as family, psychological assessment, mental health, male/female relationships, personality and community development as well as educational, ethical and contemporary issues. Critical examination of psycho-cultural forces which have helped to shape and determine the unique thought, styles,	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			behavior of African-Americans and to gain a greater appreciation of the theories, research, writings, and activities of Black Psychologists.				
PSY201AC	Selected Issues in Psychology		In-depth investigation of topical issues in Psychology. Promotes understanding of the psychological theory, application, and critical reasoning about the selected psychological issues and topics. Potential topics may include, but not limited to, parenting, gender, applied cognitive psychology, personality, perception, applied-experimental interventions, motivation, emotion, cultural psychology, methodology paradigms, history and systems, development, and intelligence.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	PSY201AC may be repeated for credit with change of topic.	Acad	LEC 3.0 3.0 3.0
PSY210	Educational Psychology		Scientific research and psychological principles as they apply to teaching and learning. The role of psychology in educational settings, human diversity, theories of learning, intelligence, memory, creativity, assessment, and factors influencing effective instruction and learning.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
PSY215	Sports Psychology		Application of the physiological, behavioral, social, cognitive, and humanistic perspectives in psychology to sport. Includes topics such as optimal performance, correlation, motivation, co-action effect, self-actualization, psycho-behavioral techniques, self-efficacy, and the general health benefits of sport participation.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PSY218	Health Psychology		Behavioral and mental foundations of health, wellness, illness, and disease, and psychological dimensions of medical intervention.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
PSY225	Psychology of Religion		Provides an introduction to the history, varieties and theories of the psychology of religion from an empirical, research-based perspective. Specific areas of study include the role of gender, age, socioeconomic status, and personality on religious experience, the effects of religion and prayer on mental and physical health, the development of religious thought and behavior over the lifespan, and the social psychology of new religious movements. In addition, the role of cultural differences on religious attitudes both within the USA and around the world is also addressed.	Prerequisites: A grade of C or better in PSY101 or Permission of Instructor.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
PSY230	Introduction to Statistics		An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, and the statistical evaluation of data collected through experimentation. Required of psychology majors.	Prerequisites: A grade of C or better in (PSY101 and eligibility for MAT14+ or higher as indicated by appropriate district mathematics placement) or permission of Instructor.	Student may receive credit for only one (1) of the following courses: PSY230 or PSY230WL .	Acad	LEC 3.0 3.0 3.0
PSY230WL	Introduction to Statistics with Lab		An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to	Prerequisites: A grade of C or better in (PSY101 and eligibility for	Student may receive credit for only one (1) of the	Acad	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, use of statistical software, and the statistical evaluation of data collected through experimentation. Required of psychology majors.	MAT14+ or higher as indicated by appropriate district mathematics placement) or permission of Instructor.	following courses: PSY230 or PSY230WL .		
PSY231	Laboratory for Statistics		Applications of inferential and descriptive statistics to statistical software in the field of psychology.	Prerequisites: None. Corequisites: PSY230.		Acad	LAB 1.0 2.0 2.0
PSY235	Psychology of Gender		To assess historical and psychological perspectives on women and men and to evaluate contemporary viewpoints regarding the psychology of women and men.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB] General Education Designation : Cultural Diversity - [C]	Acad	LEC 3.0 3.0 3.0
PSY240	Developmental Psychology		Human development from conception through death. Includes biological, physical, cognitive, emotional, and sociocultural development across various ages.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	PSY240 is recommend ed for students majoring in nursing, education, behavioral, pre-med, and psychology.	Acad	LEC 3.0 3.0 3.0
PSY241	Understanding and Changing Behavior		Theory and methods for observing, analyzing, and modifying behavior.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
PSY242	Understanding and Changing Behavior Lab		Advanced course designed to enable students to apply the principles of Applied Behavior Analysis (ABA) in a lab setting. Incorporates case studies and hands-on	Prerequisites: A grade of C or better in PSY241.	PSY242 students will complete in-class role-plays, practice exam	Acad	LAB 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			employment of best practices. Reviews current research in areas including, but not limited to, schedules of reinforcement, functional behavior assessment, stimulus discrimination and generalization.		questions, and submit videos of themselves performing specific procedures.		
PSY243	The Psychology of Developmental Disabilities		The interrelationships among the physical, intellectual, social, and psychological aspects of developmental disabilities (DD). Various service approaches, policies, and programs designed to foster an adequate adjustment for individuals with DD and their families. Values and beliefs relating to persons with developmental disabilities.	Prerequisites: A grade of C or better in PSY101.		Acad	LEC 3.0 3.0 3.0
PSY244	Internship in Psychology		Experience in working in a wide variety of settings including but not limited to schools, non-profit agencies, advocacy agencies and other governmental agencies. 80 hours of designated volunteer or paid work.	Prerequisites: A grade of C or better required in all prerequisites. Prerequisites or Corequisites: Any two (2) 200-level PSY courses and permission of Instructor.	PSY244 may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0
PSY248	Psychology of Adolescent Development		Explores the highly specialized developmental stage of adolescence. Includes biological, cognitive, psychosexual, and sociocultural factors as well as current theories and research.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
PSY250	Social Psychology		The scientific study of how people's thoughts, feelings, and behaviors are influenced by other people and situations. Includes how we think about ourselves and others, persuasion and	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	Course Attribute(s): General Education Designation : Social and Behavioral	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			influence, sexual and romantic attraction, friendship and helping others, aggression and prejudice.		Sciences - [SB]		
PSY260	Psychology of Personality		Introduction to theories of personality with emphasis upon application of specific theories towards the understanding of individuals.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
PSY262	Positive Psychology: The Science of Well-Being		Overview and application of psychological principles based on strengths and resilience of human beings as opposed to dysfunction and symptoms of mental disorders. Topics include happiness, relationships, resilience, optimism, well-being, and brain research explaining positive emotions.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
PSY266	Psychological Disorders		Distinguishes between healthy psychological functioning and psychological disorders. Includes topics in psychopathology such as problems with anxiety and depression, eating disorders, substance-use, schizophrenia, sexuality, and personality. Also covers causes and treatments of psychological disorders.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
PSY267	Introduction to Forensic Psychology		Overview of the practice of psychology in the law, by the law, and of the law. Focuses on the complementary functions and distinctions between psychology and the legal justice system. Topics include, but are not limited to, criminal investigations, risk and level of danger, competency,	Prerequisites: A grade of C or better in PSY101.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			interrogations, confessions, assessment, eyewitness testimony, child custody, and domestic violence.				
PSY270	Personal and Social Adjustment		Surveys the basic mental health principles as they relate to coping with stress, interpersonal relationships, sex, marriage, and working. Emphasis on learning to become a more competent and effective person.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
PSY275	Biopsychology		Biological foundations of sensation, perception, motivation, emotion, cognition and psychopathology. Designed for students in the life sciences.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	Course Attribute(s): General Education Designation : Natural Sciences (General) - [SG]	Acad	L+L 4.0 5.0 5.0
PSY277	Psychology of Human Sexuality		Survey of psychological and physiological aspects of human sexual behavior. Emphasis placed on the integration of the cognitive, emotional, and behavioral factors in sexual functioning.	Prerequisites: A grade of C or better in PSY101.	PSY277 may contain adult content. All students under the age of 18 are required to have a signed parental consent form on file, which is on the back of the Under the Age of 18 Enrollment Form.	Acad	LEC 3.0 3.0 3.0
PSY280	Industrial/Organizational Psychology		The application of psychological principles to business and industry practices including organizational structure, leadership, personnel, employee stress and conflict, workplace conditions and job performance.	Prerequisites: A grade of C or better in PSY101, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PSY282AA	Volunteerism Service Learning Experience in Psychology		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in PSY101 and permission of Instructor.	PSY282AA may be repeated for a total of three (3) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
PSY282AB	Volunteerism Service Learning Experience in Psychology		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in PSY101 and permission of Instructor.	PSY282AB may be repeated for a total of three (3) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
PSY282AC	Volunteerism Service Learning Experience in Psychology		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in PSY101 and permission of Instructor.	Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
PSY290AB	Research Methods		Planning, execution, analysis, and written reporting of psychological research using American Psychological Association guidelines (APA). Surveys the literature, procedures, and instruments in representative areas of psychological research.	A grade of C or better required in all Prerequisites. Prerequisites: ENG101 or ENG107. Prerequisites or Corequisites: PSY230 or PSY230WL or permission of Instructor.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L] General Education Designation : Natural Sciences (General) - [SG] Arizona Shared Unique	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Number SUN#: PSY 2290		
PSY290AC	Research Methods		Planning, execution, analysis, and written reporting of psychological research using American Psychological Association guidelines (APA). Surveys the literature, procedures, and instruments in representative areas of psychological research.	A grade of C or better required in all Prerequisites. Prerequisites: ENG101 or ENG107. Prerequisites or Corequisites: PSY230 or PSY230WL or permission of Instructor.	Course Attribute(s): General Education Designation : Literacy and Critical Inquiry - [L] General Education Designation : Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# PSY 2290	Acad	LEC 3.0 3.0 3.0 LAB 1.0 2.0 2.0
PSY292	Psychology of Altered States of Consciousness		Examines phenomena and history of altered states of consciousness. Surveys scientific principles, methods and applications in altered states research. Reviews current psychological research in topics related to sensory deprivation, daydreaming, meditation, hypnosis, sleep and dreams, and the effects of drugs.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
PSY295AA	Independent Research in Psychology		Original scientific investigation of psychology-related phenomenon.	Prerequisites: A grade of C or better in PSY290++ or Corequisites: PSY290++ or permission of Instructor.	PSY295AA requires a minimum of 80 hours of laboratory/r esearch study. PSY295AA may be repeated for credit.	Acad	LAB 1.0 1.0 0.0
PSY298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
PSY298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
PSY298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE				
PTA101	Survey of Physical Therapy		History of physical therapy. Purpose, benefits, and goals of the Arizona and American Physical Therapy Associations (APTA). Roles and responsibilities of physical therapists (PT) and physical therapist assistants (PTA). Patient care, legal issues, principles of physical therapy treatment, education requirements, and functions of the American Physical Therapy Association. Clinical practice settings used in the provision of physical therapy services. Common medical conditions and injuries treated by PT's and PTA's. Emerging opportunities in the practice of physical therapy.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LEC 1.5 1.5 1.5
PTA102	Structured Physical Therapist Assisting Review		Structured physical therapist assisting tutorial assistance and physical therapist assisting study skills related to physical therapist assisting courses. Physical therapist assisting process and critical thinking application skills emphasized.	Prerequisites: None. Corequisites: Enrollment in the Physical Therapist Assisting program or permission of Department Chair.	PTA102 offered as Credit (P) No credit (Z) basis. PTA102 may be repeated for a total of eight (8) credit hours.	Occ	LEC 1.0 1.0 1.0
PTA103	Kinesiology		Physical principles of human motion. Emphasis on structure, movement, and stability of specific joints. Normal and abnormal human locomotion. Stabilizing and motion producing forces upon extremities and the spine including muscles, ligaments, and cartilage. Discussion of common joint deformities.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Kinesiological analysis of functional movement of the human body.				
PTA104	Musculo-Skeletal Assessment Techniques		Theory and principles of goniometry and manual muscle testing. Measure range of motion of joints and strength of muscles of the head, face, neck, trunk and extremities. Normal range of motion of the spine and extremities. Assess posture and common postural deviations. Palpate and identify pertinent bony and soft tissue structures. Document results of goniometric measurement, muscle testing, palpation and posture assessment. Perform data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LAB 1.5 4.5 4.5
PTA152	Musculoskeletal Kinesiology and Assessment Techniques in Sonographic Imaging		Joint movements and planes of motion. Normal anatomy of the extremities. Tissue physiology. Pathological structures and their relationships. External palpation and relation to imaging.	Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director.		Occ	L+L 4.0 6.0 6.0
PTA200	Patient Mobility Techniques		Theory, principles and practice of proper body mechanics. Principles and techniques of gait training, bed mobility and transfers, wheelchair mobility. Theory, principles, and techniques of therapeutic exercise. Patient instruction, data collection, assistive devices and equipment used by the physical	Prerequisites: A grade of C or better in (PTA101, PTA103, and PTA104) or permission of the Program Director.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			therapist assistants and their patients. Safety and first aid in physical therapy practice settings including contraindications for therapeutic interventions. Document physical therapy interventions. Perform physical therapy interventions in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist.				
PTA202	Therapeutic Modalities		Stages of inflammation responses and tissue repair. Theories on pain. Guidelines for patient positioning and safety. Physiological effects of therapeutic modalities. Principles and application of thermal agents. Apply superficial and deep thermal agents, cryotherapy, ultrasound, electromagnetic radiation, massage, hydrotherapy, light, intermittent venous compression therapies, and traction. Indications and contraindications for treatment methods. Concepts in research in physical therapy. Document physical therapy interventions. Perform physical therapy interventions including relevant data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist.	Prerequisites: A grade of C or better in (PTA101, PTA103, and PTA104) or permission of the Program Director.		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PTA203	Clinical Pathology		Terminology and definitions used in discussion of human pathology. Disease processes frequently encountered in physical therapy practice. Functional anatomy, select medical tests for diagnoses, and medication and effects in providing physical therapy. Principles of disease prevention.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LEC 3.0 3.0 3.0
PTA204	Preclinical Practicum I		Supervised physical therapy clinical practice in the Healthcare United at GateWay (HUG) Clinic with moderate to maximal supervision with emphasis on performance of data collection and treatment interventions for a diverse patient population in an outpatient treatment setting.	Prerequisites: A grade of C or better in PTA101, PTA103, and PTA104. Corequisites: PTA202.		Occ	LAB 0.5 1.5 1.5
PTA205	Communication in Physical Therapy		Communication skills in the Physical Therapy setting. Self-image in communication. Active listening, responding to problems, body language, patient interview skills. Communicating with chronically ill and dying patients and their families. Communicating with persons with disabilities. Cultural differences in communication and views of Health Care.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of Department or Division.		Occ	LEC 1.5 1.5 1.5
PTA206	Clinical Practicum I		Clinical experience with advanced beginner or higher level of performance for physical therapist assisting students. Application of physical therapy skills and techniques in specific clinical settings including outpatient,	Prerequisites: A grade of C or better in (PTA200, PTA202, PTA203, PTA204, and PTA205) or permission of the Program Director.		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			hospital, rehabilitation and skilled nursing care.	Corequisites: PTA207.			
PTA207	Clinical Practicum Seminar I		Integration of non-clinical aspects of clinical practicums with clinical performance in Clinical Practicum I. Emphasis on clinical journaling, in-service and case presentations, and documentation of patient care interventions.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director. Corequisites: PTA206.		Occ	LEC 1.0 1.0 1.0
PTA208	Rehabilitation of Special Populations		Rehabilitation strategies for brain injured patients. Neurodevelopmental treatment emphasized. Theories and alternative physical therapy treatment for neurologically impaired patients. Clinical applications and treatment of patients. Proprioceptive neuromuscular facilitation (PNF), cardiopulmonary rehabilitation, spinal cord injury and amputee management, and prosthetics/orthotics. Motor development and changes across the lifespan including developmental motor milestones and normal reflexes and reactions. Emphasis on proficiency in hands-on techniques.	Prerequisites: A grade of C or better in (PTA200, PTA202, PTA203, and PTA205), or permission of the Program Director.		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0
PTA210	Orthopedic Physical Therapy		Response of human bone and soft-tissue to injury. Orthopedic and medical management and physical therapy interventions for common injuries of the extremities and spine. Common orthopedic surgeries. Joint mobilization techniques. Body mechanics and therapeutic exercise programs. Documentation procedures. Perform	Prerequisites: A grade of C or better in (PTA206 and PTA207) or permission of the Program Director.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			physical therapy interventions including relevant data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist.				
PTA214	Electromodalities		Electrical currents for physical therapy. Types of human muscular contractions. Safety stressed. Application of electrical currents for physical therapy. Uses and implications of electrical nerve tests. Biophysical effects of transcutaneous electrical nerve stimulation. Use of low volt, high volt, and interferential electrical stimulation devices. Neuromuscular electrical stimulation (NMES). Use of biofeedback in physical therapy. Perform physical therapy interventions using including relevant data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist.	Prerequisites: A grade of C or better (PTA206 and PTA207) or permission of the Program Director.		Occ	LEC 2.5 1.5 1.5 LAB 0.0 3.0 3.0
PTA215	Wound Care for the Physical Therapist Assistant		Introduction to current concepts in wound care management techniques for the physical therapist assistant including skin anatomy and physiology, principles of healing, types of wounds, and therapeutic interventions.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
PTA217	Clinical Neurology		Anatomy and function of the brain, spinal cord and peripheral nervous	Prerequisites: A grade of C or better in		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			system. Review of motor and sensory innervation and spinal tracts. Specific diseases of the central and peripheral nervous systems related to the physical therapy plan of care. Emphasis on clinical signs and symptoms of neurological disorders.	(PTA101, PTA103, PTA104, PTA200, PTA203, and PTA206) or permission of the Program Director.			
PTA230	Physical Therapy Seminar		Current practices and issues in physical therapy. Clinical problem solving, ethics, legal aspects, reimbursement, management, research. Resume preparation and job interviewing skills. Stress management techniques. Total quality management principles. Employment issues. Prevention of fraud and abuse. Career and professional development. Job descriptions, performance assessments, and wage and salary administration.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0
PTA240	Peripheral Joint Mobilization Techniques for the Physical Therapist Assistant		Peripheral joint mobilization techniques for the upper and lower extremity joints. Concepts, indications, and contraindications. Documentation. Statutes and policies regarding joint mobilizations.	Prerequisites: Certification or licensure as a Physical Therapist Assistant and six months clinical practice.		Occ	L+L 1.0 1.0 1.0
PTA279	Preclinical Practicum II		More advanced supervised physical therapy clinical practice in the Healthcare United at GateWay (HUG) Clinic with minimal supervision with emphasis on performance of data collection and treatment interventions for a diverse patient population in an outpatient treatment setting.	Prerequisites: A grade of C or better in PTA206. Corequisites: PTA210.		Occ	LAB 0.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
PTA280	Clinical Practicum II		Clinical experience requiring an intermediate or higher level of clinical performance by the physical therapist assisting students. Application of physical therapy skills and techniques in various clinical settings including outpatient, hospital, rehabilitation and skilled nursing.	Prerequisites: A grade of C or better in (PTA208, PTA210, PTA214, PTA217, and PTA279) or permission of Program Director. Corequisites: PTA281.		Occ	LAB 3.0 15.0 0.0
PTA281	Clinical Practicum Seminar II		Integration of non-clinical aspects of clinical practicums with clinical performance in Clinical Practicum II. Emphasis on clinical journaling, in-service and case presentations, and documentation of patient care interventions.	Prerequisites: Admission to the Physical Therapist Assisting program, or permission of Department or Division. Corequisites: PTA280.		Occ	LEC 1.0 1.0 1.0
PTA290	Clinical Practicum III		Clinical experience with entry-level performance for physical therapist assisting students. Application of physical therapy skills and techniques in specific clinical settings including outpatient, hospital, rehabilitation and skilled nursing.	Prerequisites: A grade of C or better in: PTA208, PTA210, PTA214, and PTA217 or permission of Department or Division. Corequisites: PTA292.		Occ	LAB 3.0 15.0 0.0
PTA292	Clinical Practicum Seminar III		Integration of non-clinical aspects of clinical practicums with clinical performance in Clinical Practicum III. Emphasis on clinical journaling, in-service and case presentations, and documentation of patient care interventions.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Department or Division. Corequisites: PTA290.		Occ	LEC 1.0 1.0 1.0
PTA295	Physical Therapist Assistant Examination Review		Preparation for the physical therapist assistant examination administered by the Federation of State Boards of Physical Therapy. Topics include physical therapy	Prerequisites: Admission to the Physical Therapist Assisting program or permission of		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			management of patients with musculoskeletal, neurological, integumentary and cardiopulmonary system diseases and complications. Therapeutic modalities, therapeutic exercise, functional mobility activities, and data collection techniques. Documentation and ethical/legal considerations in practice of physical therapy.	the Program Director.			
QCT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
QCT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and	Prerequisites: Completion of at least twelve (12)		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
QCT296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to students major or career interest or with permission of Instructor.			
QCT296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0
QCT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
QCT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
QCT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
QST200	Introduction to Queer Studies		Provides a general introduction to queer studies, including review of queer theory, intersectionality, social	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and political institutions, representation, and identity related to sex, gender, and sexual orientation.				
QST210	Queer Media Studies		Brings together media studies and queer studies to examine the history and ongoing development of media produced by queer and non-queer creators in national and global contexts. Interrogates the relationship between sex, gender, and sexuality as it is and has been represented in media. Offers an overview of popular media and queerness.	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0
RAD100	Introduction to Radiologic Science and Health Care		Provides an overview of the foundations of radiography and the practitioner's role in health care delivery. Principles, practices and policies of health care organizations will be examined and discussed in addition to the professional responsibilities of the radiographer.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 3.0 3.0 3.0
RAD101	Ethics and Law in the Radiologic Sciences		Foundation in ethics and law related to the practice of medical imaging. An introduction to terminology, concepts and principles will be presented.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 1.0 1.0 1.0
RAD102	Structured Diagnostic Medical Imaging Skills Enhancement I		Structured medical imaging cognitive and non-cognitive learning, study skills, and strategies to help students achieve success in their respective imaging courses. Medical imaging learning process and critical thinking application skills are emphasized.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
RAD103	Radiation Protection in Radiologic Technology		Content presents an overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are incorporated.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 2.0 2.0 2.0
RAD104	Imaging Equipment		Content establishes a knowledge base in radiographic, fluoroscopic and mobile equipment requirements and design. Content also provides a basic knowledge of quality control.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 2.0 2.0 2.0
RAD105	Radiation Production and Principles of Exposure		Content establishes a basic knowledge of atomic structure and terminology and a base in technical factors that govern the image production process. Also presented are the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 2.5 2.0 2.0 LAB 0.0 1.5 1.5
RAD106	Patient Care in Radiologic Sciences I		Content provides the foundational concepts of optimal patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures are described, as well as infection control procedures using standard precautions. The role of the radiographer in patient education is identified.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 2.5 2.0 2.0 LAB 0.0 1.5 1.5
RAD107	Radiographic Procedures I		Content provides the knowledge base necessary to perform	Prerequisites: Admission to the Medical		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			standard imaging procedures. Focus is on upper extremities, lower extremities, shoulder, and thorax. Consideration is given to the evaluation of optimal diagnostic images.	Radiography Program.			LAB 0.0 3.0 3.0
RAD109	Radiography Practicum I		Clinical practice experience to develop and apply concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are discussed, examined and evaluated. Focus is on patient care and assessment and competent performance of radiologic imaging. Imaging procedures are performed under the appropriate supervision of a qualified radiographer.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LAB 3.5 19.0 0.0
RAD112	Structured Diagnostic Medical Imaging Skills Enhancement II		Focus is on the application of structured medical imaging cognitive and non-cognitive learning, study skills, and strategies to help students achieve success in their respective imaging courses and their first clinical experience. Medical imaging learning process and critical thinking application skills introduced in the Structured Diagnostic Medical Imaging Skills Enhancement I course are reinforced; and advanced concepts are introduced.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 1.0 1.0 1.0
RAD114	Digital Image Acquisition and Display I		Imparts an understanding of the components, principles and operation of digital	Prerequisites: Admission to the Medical		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval are discussed.	Radiography Program.			
RAD116	Patient Care in Radiologic Sciences II		Content provides advanced concepts of optimal patient care, including consideration for assessment of vital signs. Trauma and emergency patient care procedures are described, as well as surgical asepsis concepts. The role of the radiographer in surgical settings is also discussed.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 2.5 2.0 2.0 LAB 0.0 1.5 1.5
RAD117	Radiographic Procedures II		Content provides the knowledge base necessary to perform standard imaging procedures. Focus is on abdomen, pelvic girdle, vertebral column, and cranium. Contrast studies specific to the gastrointestinal system are also addressed. Consideration is given to the evaluation of optimal diagnostic images.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0
RAD119	Radiography Practicum II		Clinical practice experience to develop, apply, reinforce, and integrate concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are practiced, examined, and evaluated. Focus is on patient care and assessment and competent performance of radiologic imaging. Imaging procedures are performed under the appropriate supervision	Prerequisites: Admission to the Medical Radiography Program.		Occ	LAB 6.0 36.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of a qualified radiographer.				
RAD203	Radiation Biology		Provides an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Factors affecting biological response are presented, including acute and chronic effects of radiation.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 2.0 2.0 2.0
RAD206	Pharmacology and Venipuncture		Content provides basic concepts of pharmacology, venipuncture and administration of diagnostic contrast agents and intravenous medications. The appropriate delivery of patient care during these procedures is emphasized.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 1.0 1.0 1.0 LAB 0.0 1.0 1.0
RAD207	Radiographic Procedures III		Content provides the knowledge base necessary to perform advanced imaging procedures. Focus is on special studies, trauma, and surgical procedures. Contrast studies specific to the urinary system are also addressed. Consideration is given to the evaluation of optimal diagnostic images.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 1.5 1.5
RAD208	Image Analysis I		Provides a basis for analyzing radiographic images. Included are the importance of optimal imaging standards, the use of problem-solving techniques for image evaluation, and the factors that can affect image quality. Focus on the analysis of images for the upper extremity, shoulder, lower extremity, bony thorax, upper airway, and chest.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
RAD209	Radiography Practicum III		Continued clinical practice experience to further develop, apply, reinforce, and integrate concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are practiced, examined, and evaluated. Focus remains on patient care and assessment and competent performance of radiologic imaging. New experiences in special procedural environments. Imaging procedures are performed under the appropriate supervision of a qualified radiographer.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LAB 5.0 29.0 0.0
RAD212	Structured Diagnostic Medical Imaging Skills Enhancement III		Use of skills and resources for preparing for the American Registry of Radiologic Technologists (ARRT) exam. Utilization of career and educational planning resources is emphasized.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 1.0 1.0 1.0
RAD214	Digital Image Acquisition and Display II		Imparts an understanding of the image acquisition errors related to components, principles and operation of digital imaging systems found in diagnostic radiology. Principles of digital system quality assurance and maintenance are presented. The concept of "as low as reasonably achievable" (ALARA) as it relates to digital imaging systems is also covered.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 2.0 2.0 2.0 LAB 0.0 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
RAD217	Radiographic Pathology and Additional Modalities		Introduces concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease. Additional modalities are also discussed.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 2.0 2.0 2.0
RAD218	Image Analysis II		Provides a basis for analyzing radiographic images. Included are the importance of optimal imaging standards, the use of problem-solving techniques for image evaluation, and the factors that can affect image quality. Focus on analysis of images for the abdomen, pelvic girdle, vertebral column, cranium, and special studies.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LEC 1.0 1.0 1.0
RAD219	Radiography Practicum IV		Continued clinical practice experience to further develop, apply, reinforce, and integrate concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are practiced, examined, and evaluated. Focus remains on patient care and assessment and competent performance of radiologic imaging. Continued experiences in special procedural environments. Imaging procedures are performed under the appropriate supervision of a qualified radiographer.	Prerequisites: Admission to the Medical Radiography Program.		Occ	LAB 5.0 29.0 0.0
RBT296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
RBT296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students major or career interest or with permission of Instructor.			
RBT296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
RBT296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
RBT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
RBT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
RBT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
RDG071	Basic Reading		Provide opportunities for practice and application of basic reading skills. Includes phonic analysis, word recognition, structural analysis, use of context clues, and use of dictionary, reinforced through practical application. Development of vocabulary required for success in content area courses. Emphasis on literal comprehension and development of inferential interpretation.	Prerequisites: Appropriate reading placement test score or a grade of C or better in ESL/RDG046 or permission of Instructor.	Recommended for all students with limited reading experiences	Acad	LEC 3.0 3.0 3.0
RDG079	Vocabulary Improvement		Systematic methods of increasing vocabulary by emphasizing the most important affixes, Latin, and Greek roots. Content analysis techniques. Common foreign words and phrases used in English. Specialized vocabularies	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of areas of study and interest. Interpretation of information in dictionary entries. Examination of words frequently confused and misused. College preparatory level				
RDG081	Reading Improvement		Designed to improve basic reading skills. Includes word recognition, interdisciplinary vocabulary development, recognizing patterns of organization, interpreting inference. Reviews interpreting graphic materials. Emphasis on identifying main ideas and related details.	Prerequisites: Appropriate reading placement test score or a grade of C or better in RDG071 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
RDG081AC	Reading Fundamentals Applications		Continues students' expansion of vocabulary through the use of additional vocabulary improvement. Expands identification of main ideas and related details to longer reading selections. Reviews the following or written directions and the understanding of graphic materials.	Prerequisites: Placement test scores or permission of Instructor.		Acad	LEC 1.0 1.0 1.0
RDG085	Adult Reading Skills for the Workplace		Small cooperative group settings used to discuss readings to enhance comprehension, oral communication, and problem solving skills. Emphasis on reading and thinking skills as applied to overall job performance. Using context clues, constructing graphs, following written directions, using diagrams and flow charts, locating main ideas, recognizing cause and effect, and identifying logical order in written text	Prerequisites: Appropriate score on placement test.		Acad	LEC 1.0 1.0 1.0
RDG086	Problem Solving and Reading in the Workplace		Small cooperative group setting used to discuss readings to enhance	Prerequisites: Appropriate score on		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			comprehension, oral communication, and problem solving skills. Emphasis on evaluative reading and thinking skills as applied to overall job performance. Previewing; determining main points and purpose of general and work-related materials; interpreting charts and graphs.	placement test or RDG085.			
RDG095	Intensive Foundations for College Reading		Accelerated format to improve basic reading skills, study skills, and information literacy skills including vocabulary development, main idea identification, patterns of organization recognition, and comprehension improvement.	Prerequisites: Appropriate reading placement test score or a grade of B or better in RDG071 or permission of Instructor.	RDG095 is an accelerated and intensive learning program for students and meets the requirements for RDG081 and RDG091 in one semester.	Acad	LEC 6.0 6.0 6.0
RDG100	Successful College Reading		Emphasis on reading study strategies for any introductory class in any subject area. Introduction to Learning Management System (LMS), how to successfully read course textbooks and assessments, how to navigate information technology and development of academic vocabulary.	Prerequisites: A grade of C or better in ALT100, or RDG081, or ESL202, or appropriate reading placement, or permission of Instructor. Corequisites: Any 100-level course in another content area, or permission of Instructor.	RDG100 satisfies RDG091 requirement . RDG100 may be repeated for a total of twelve (12) credit hours.	Acad	LEC 3.0 3.0 3.0
RDG100AA	Successful College Reading - Organizing for Success		Includes goal setting, time management, college orientation, reading content materials. Emphasis on organizational skills and strategies for any introductory class in any	Prerequisites: A grade of C or better in RDG081 or appropriate reading placement score or		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			subject area. Introduction to Learning Management System (LMS), how to organize and manage college reading assignments, and how to navigate information literacy using campus resources.	permission of Instructor. Corequisites: Any 100-level course in another content area or permission of Instructor.			
RDG100AB	Successful College Reading - Notetaking and Studying for Success		Emphasis on reading study and notetaking techniques applicable to any introductory class in any subject area. Includes effective use of textbooks, notetaking, and development of academic vocabulary.	Prerequisites: A grade of C or better in RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100-level course in another content area or permission of Instructor.		Acad	LEC 1.0 1.0 1.0
RDG100AC	Successful College Reading - Taking College Exams with Success		Emphasis on successful lecture notetaking and synthesis of information, studying skills and strategies, types of exams, and exam taking strategies for success in any college introductory class.	Prerequisites: A grade of C or better in RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100-level course in another content area or permission of Instructor.		Acad	LEC 1.0 1.0 1.0
RDG100LL	Disciplinary Literacy Lab		Supplemental instruction for college-level discipline courses. Focus on developing effective reading processes to address a range of literacy needs including reading, writing, digital, numerical, financial and informational literacies.	Prerequisites: None. Corequisites: Any 100-level course in another content area or permission of Instructor.		Acad	LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
RDG111	Successful College Reading for Cultural or Social Sciences		Emphasis on reading study strategies for an introductory class in the Cultural and Social Sciences. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary.	Prerequisites: A grade of C or better in ALT100 or RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100-level course in Cultural Science or Social Science area or permission of Instructor.	RDG111 satisfies RDG091 requirement .	Acad	LEC 3.0 3.0 3.0
RDG112	Successful College Reading for Life Sciences, Mathematics, Physical Sciences or Technology		Emphasis on reading study strategies for an introductory class in the Life Science, Mathematics, Physical Sciences, or Technology. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary.	Prerequisites: A grade of C or better in ALT100 or RDG081 or appropriate reading placement or permission of Instructor. Corequisites: Any 100-level class in the Life Sciences or Mathematics or Physical Sciences or Technology or permission of Instructor.	RDG112 satisfies RDG091 requirement .	Acad	LEC 3.0 3.0 3.0
RDG113	Successful College Reading for Communication, Humanities or Behavioral Science		Emphasis on reading study strategies for an introductory class in the Communication, Humanities, or Behavioral Science. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary.	Prerequisites: A grade of C or better in ALT100 or RDG081 or appropriate reading placement or permission of Instructor. Corequisites: Any 100-level course in Communicati on or	RDG113 satisfies RDG091 requirement .	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross References	Description	Requisite	Course Note	Subject Type	Credits Periods Load
				Humanities or Behavioral Sciences or permission of Instructor.			
RDG282AA	Service-Learning Experience in Reading		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	RDG282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
RDG282AB	Service-Learning Experience in Reading		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	RDG282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
RDG282AC	Service-Learning Experience in Reading		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	RDG282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
RDG296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				<p>be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.</p>			
RDG296W B	Cooperative Education		<p>Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.</p>	<p>Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with</p>		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of the Instructor.			
RDG296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
RDG296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
RDG298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
RDG298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
RDG298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
REA150	Supervisory Appraiser/Appraiser Trainee		Examine the national minimum requirements, responsibilities, and expectations for Trainee Appraisers and Supervisory Appraisers that are included in the Appraiser Qualifications Board (AQB) Criteria.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
REA179	Real Estate Principles I		Basics of real estate principles including introduction to the profession and license law, definition of real property, legal descriptions, rights and interests in property, ownership, contracts, title transfer and escrow procedures. Also covers an introduction to water rights and environmental hazards as well as procedures for various real estate calculations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
REA180	Real Estate Principles II		Advanced work in real estate including governmental restrictions and limitations, property management, insurance and warranties, appraisal procedures, financing and loan security instruments.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Also covers Deed of Trust foreclosure options and consumer protection provisions.				
REA201	Real Estate Principles I and II		Comprehensive survey of real estate principles to include careers in real estate, nature and description of real estate, rights and interests in land, forms of real property ownership, forms of business organization, methods of title transfer, title search and insurance, contract law, real estate sales contracts, mortgage and notes payable, deeds of trust, lending practices, loans and consumer rights, sources of financing real estate loans, types of financing instruments, real property taxes and assessments, title closing, escrow and settlement procedures, property management and real estate leases, real estate appraisal, state licensing laws and professional affiliations, real estate brokerage, real estate agency, fair housing and equal credit laws, types of residential real estate, real property insurance, land use control, economics of real estate, and investment considerations.	Prerequisites: None.		Occ	LEC 6.0 6.0 6.0
REA205	Introduction to Commercial Real Estate		Introduces key features of the commercial real estate industry and its differences from residential real estate. Provides residential agents with a starting point to transition into commercial real estate.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
REA208	Ethics in Commercial Real Estate		Course covers ethics in commercial real estate.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Review of National Association of Realtors (NAR) code of ethics and scenarios common in commercial real estate transactions.				
REA211	Compliance in Commercial Real Estate		Course covers compliance in commercial real estate. Review of federal, state, and municipal regulations and scenarios common in commercial real estate transactions.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
REA214	Finances in Commercial Real Estate		Course covers finances in commercial real estate, including funding sources, taxes, and relevant data and analytic tools. Also includes review of financial presentations to clients.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
REA220	Multiunit Properties in Commercial Real Estate		This course covers various considerations of the multiunit commercial properties industry sector. Overview of the types of properties, financial considerations, transaction processes, resources, and compliance considerations.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
REA225	Industrial Properties in Commercial Real Estate		Covers various aspects of the industrial commercial properties industry sector. Overview of the types of properties, financial considerations, transaction processes, resources, and compliance considerations.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
REA230	Land Properties in Commercial Real Estate		Covers various aspects of the land commercial properties industry sector. Overview of the types of land and land use, financial considerations, transaction processes, resources, and	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			compliance considerations.				
REA235	Commercial Real Estate Essential Tools		Covers various tools for research, analysis, and presentation of data relevant to commercial real estate.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
REA240	Introduction to Commercial Property Management		Provides an overview of the commercial property management industry. Covers the key aspects of commercial property management, including compliance requirements, financial considerations, and ethical practices. Includes application of commercial property management knowledge and skills in a variety of settings such as medical, office, mixed-used, industrial, bio-science, and non-profit company buildings.	Prerequisites: An Arizona real estate license, or completion of MCCCCD's CCL Real Estate: Prelicense (5139N) or its equivalent, or a real estate license from another state, or completion of pre licensure coursework from another approved Arizona real estate school.		Occ	LEC 2.0 2.0 2.0
REA270	Basic Appraisal Principles		Overview of real property concepts and characteristics, legal considerations, value influences, real estate finance, types of value, economic principles, real estate markets and analysis, and ethics in appraisal practice	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
REA271	Basic Appraisal Procedures		Overview of real estate appraisal approaches to valuation procedures, value, property description, residential applications, commercial applications, improvement construction, home inspection, and appraisal math. Practical application of appraisal procedures including case studies, and examples	Prerequisites: A grade of C or better in REA270 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
REA272	Uniform Standards of Professional Appraisal Practice (USPAP)		Basic rules for ethical behavior and competent performance. USPAP requirements for state certified appraisers. Highlights role of the appraiser and implied impartiality of this role. Requirements of the Uniform Standards of Professional Appraisal Practice (USPAP) affect appraisal businesses.	Prerequisites: None.		Occ	LEC 1.0 2.0 1.7
REA273	Residential Market Analysis Highest and Best Use		Recognize and evaluate market conditions affecting the buyers' and sellers' activities in understanding and reporting values. Gather and evaluate market data. Markets, sub-markets, market segmentation, supply side analysis, demand analysis and the importance of market examination to the appraisal process	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
REA274	Residential Appraiser Site Valuation and Cost Approach		Learn theories and methodologies for arriving at residential site values and applying the Cost Approach for new and reproduction factors. The advantages and disadvantages of using the cost methods for estimating accrued depreciation. Reading of residential building plans and specifications	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
REA275	Residential Sales Comparison and Income Approaches		Basic understanding and knowledge of the residential sales comparison and income approaches to appraisal including valuation principles and procedures applicable to these approaches. Development of market analysis, including the application and use of matched pairs and capitalization rates, and gross rent multipliers.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes organizing market data and reconciling value indications.				
REA276AA	Residential Report Writing and Case Studies I		Exposes appraiser to realistic writing skills essential to producing realistic appraisal reports in their practice. Includes study of writing techniques, grammar, punctuation, and analytical techniques. Actual report writing and case studies are applied	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
REA281	Principles of Real Estate Law		Incidents of ownership and use of real estate, legal principles, procedures, and methods of acquisition and disposition of real estate	Prerequisites: A grade of C or better in REA179 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
REA282	Real Estate Finance		Study of lending institutions, including banks, savings and loans, conventional loans, Federal Housing Administration (FHA), Veterans Administration (VA) for residential, commercial and industrial property	Prerequisites: A grade of C or better in REA179 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
REA283	Property Management		Emphasizes realty laws, survey of rentals, housing needs, and rents in Phoenix metropolitan area	Prerequisites: A grade of C or better in REA179 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
REA290AH	Real Estate Seminar: Contract Writing		Contract writing skills, techniques, and requirements. Writing of basic real estate contracts, including purchase offers, counter offers, sales listing agreements, and riders	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
REC120	Leisure and the Quality of Life		Overview of the historical, psychological, social, and cultural aspects of play, leisure, and recreation and their role in contemporary society. Nature of play and leisure behavior in human development within different cultures	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and the contribution play, recreation, and leisure make to the quality of life for individuals in today's society.				
REC210	Leisure Delivery Systems		Systematic study of Delivery of Leisure Services in public, commercial, and independent sectors; particular emphasis placed on the urban setting.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REC230	Programming of Recreation Services		Foundations for designing, planning, delivering and managing recreational and leisure events. Emphasis on application of recreation programming concepts and practices in a variety of settings and situations for a diversity of participants.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REC250	Recreation Leadership		An examination of roles and methods of leadership in leisure services settings. Overview of theories and models of leadership, group dynamics, participant motivation, communication, and face-to-face leadership. Exploration of leadership contexts, including coaching and officiating sports, leading community groups and volunteers, working with persons in various life stages and with varying abilities, and leading different recreation activity areas.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL100	World Religions		The development of various religions from the prehistoric to modern times. Political, economic, social and geographic relationships among world religions. Consideration of both Eastern and Western religions.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Designation : Humanities, Arts and Design - [HU] Arizona Shared Unique Number SUN#: REL 1101		
REL101	Introduction to Religion		Various religious expressions of humankind. Focuses on basic religious themes common to religions, such as encounter with the Holy, search for self and community, mystical illumination, spiritual discipline	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL151	Religion in the Hispanic World		Survey of various religious traditions within Spain and the Spanish-settled world. Considers the impact of and impact on both major world religions and indigenous traditions.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL200	Religion and Film		A course examining the relationships between religion and film, with particular attention to representations of religious beliefs, institutions, and practices in film and their reception by various audiences.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL201	Classics of Western Religions		Academic study of the scriptures of Judaism, Christianity and Islam, and works from later phases of these religious traditions.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Design - [HU]		
REL202	Classics of Asian Religions		Academic study of selected works from Hindu, Buddhist, Taoist and Confucian traditions. Study of cultural and concepts of the world, history, culture, and human nature as represented in these works.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL203	American Indian Religions	AIS213	An examination of the historical and cultural background of diverse lifeways and worldviews belonging to the peoples indigenous to the North American continent over time, including a study of modern day American Indian beliefs and practices.	Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
REL205	Religion and the Modern World		Introduction to the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
REL206	Religion in America		Introduction of the rich tapestry of religious traditions and movements that have helped to shape the United States of America. Investigate how religion has impacted American culture and institutions, and how the United States has in turn transformed long-standing religious traditions.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL207	Ritual, Symbol, and Myth		Introduction to the academic study of religion through the study of myths, symbols, and rituals. Includes methods and theories used by scholars to study the complex subject of religion. Attention to literate and nonliterate cultures.	Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Department or Division.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
REL210	Introduction to Judaism		Introduction to the history, scriptures, practices and impact of Judaism.	Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Department or Division.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL211	Introduction to the Old Testament (Hebrew Bible)		The historical context, development, canonization, historical transmission, translation and interpretation of the Hebrew Bible.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL212	Introduction to Islam		Introduction to History, scriptures, practices and impact of Islam.	Prerequisites: None.	Course Attribute(s): General	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]		
REL213	Introduction to the Qur'an		Historical context, development, canonization, historical transmission, translation and Interpretation of the Qur'an.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL214	Introduction to Mormonism (The Church of Jesus Christ of Latter-day Saints)		History, scriptures, doctrines, and organization of the Church of Jesus Christ of Latter-day Saints as a modern American religious movement	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL218	Religion and Culture		Examination of the relationship between religion and culture, with a particular emphasis on how culture influences religion and how religion influences culture historically and in modern settings	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL223	Spiritual But Not Religious		Explore the historical, social, and cultural context for the emergence of spiritual but not religious segment, and examine who identifies with this movement and why. Identify what variety of attitudes and beliefs this group holds, and explore the varieties of private and public spiritual practices and civic engagement this group participates in	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL225	African-American Religions		Leaders, movements, traditions, and controversies in the religious history of African-Americans	Prerequisites: None.	Course Attribute(s): General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					: Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]		
REL230	Religions Of Indigenous Peoples		Sacred story as experienced in ritual and daily practice of various contemporary groups, such as African, Native American, Native Australian, Native South American, Icelandic and Japanese. Power of sacred story to create and re-create religious and social perspectives	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL240	Religion and Science		Consideration of the relationship of religion and science from the beginnings of the historical period to the present. Includes consideration of various contemporary religious perspectives on current scientific issues	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL244	Philosophy of Religion	PHI244	Religious language, the existence of God, miracles, and human destiny	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL245	Eco Religion		Consideration of the perspectives of various religious traditions toward the origins, destiny and value of the earth and its non-human life. Includes exploration of contemporary issues in the interaction of humans with the environment	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL248	Religion, Peace and Violence		Exploration of the understandings and attitudes toward peace,	Prerequisites: A grade of C or better in		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			war and violence in religious traditions from the pre-historical to the present. Includes consideration of a variety of religious scripture traditions, theological and philosophical reflections, and religious symbolism.	ENG101, or ENG107, or permission of Instructor.			
REL250	Religion in Ireland: Neolithic to Early Medieval		Survey of the Ancient religious traditions of Ireland. Students investigate the beliefs and practices of Irish Religions in the context of their social, economical and political systems from the late Neolithic to the early Medieval periods (4000 BCE-700 CE).	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL251	History of Religion in Ireland: Medieval to Modern		Development of Christianity in Ireland from 400 AD to present, focusing on political, economic, social, and cultural factors.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL270	Introduction to Christianity		The nature and content of the Christian tradition developed over time, with overview of the New Testament, major historical trends and figures, major Christian ideas and practices, and survey of denominations.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL271	Introduction to the New Testament		Focuses on the origins, development, and selection of the New Testament (NT) books in	Prerequisites: None.	Course Attribute(s): General Education	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the Christian religion. Includes authorship, historical reliability, translation and transmission over the centuries, and investigative techniques used by modern scholars. Also considers the varieties of literature contained in the NT, its portrayal of the status of women, and the influence of first-century religious and cultural worldviews on its development.		Designation : Humanities, Arts and Design - [HU]		
REL277	Mysticism East and West		Mystical traditions of Eastern and Western religions, including Hinduism, Buddhism, Judaism, Christianity, and Islam, as well as shamanism of oral traditions	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL282AA	Service Learning Experience in Religious Studies		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in REL100 or permission of Instructor.	REL282AA may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours.	Acad	LAB 1.0 1.0 0.0
REL282AB	Service Learning Experience in Religious Studies		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in REL100 or permission of Instructor.	REL282AB may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours.	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
REL282AC	Service Learning Experience in Religious Studies		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in REL100 or permission of Instructor.	REL282AC may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours.	Acad	LAB 3.0 3.0 0.0
REL290	Women and World Religions	WST290	Focus on the role of women in several organized religions and/or religious sects. Study of myth and symbols as they are used to establish, maintain, and enforce sex-roles within specific cultural contexts around the world.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
REL291	Religion and Sexuality		Exploration of the perspectives of various religious traditions on human sexuality. Includes consideration of all aspects of sexual practice as well as its incorporation into religious discourse and practice and its impact on social norms and structures.	Prerequisites: None.	REL291 may contain adult content. All students under 18 years old are required to have a signed parental consent form on file, which is on the back of the Under the age of 18 Enrollment Form. Course Attribute(s): General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					: Global Awareness-[G] General Education Designation : Humanities, Arts and Design - [HU]		
REL292	Goddess Religions	WST292	Introduction to Goddess religions from pre-historic to modern times. Focuses on ancient origins, myths and practices of religions with female deities, their historical replacement by male religious deities, and their modern re-emergence in neo-Goddess movements.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL294	Religion in Community Service		Consideration of the history and nature of the involvement of religious tradition in transformative social action. Incorporates student involvement in some dimension of community service with subsequent integrative classroom activities.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
REL295	Capstone: The Story of Belief		Analysis of both the process and results of human belief, in various stages of the human experience. Incorporates materials from multiple disciplines to form an overarching narrative that integrates the variations of human belief	A grade of C or better in any four (4) REL courses.		Acad	LEC 3.0 3.0 3.0
REL296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
REL296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of Instructor.			
REL296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Acad	LAB 3.0 15.0 0.0
REL296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
REL298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
REL298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			COMPETENCY COURSE				
REL298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
RES109	CPR for Health Care Provider	HCC109	Current American Heart Association standards for one and two rescuer cardiopulmonary resuscitation (CPR) and obstructed airway procedures on the adult, infant, and pediatric victim. Use of automatic, external defibrillation and resuscitation equipment	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
RES118	Vascular Access for Clinical Practice		Scope of practice and regulations governing vascular access. Anatomy and physiology of the vascular system. Occupational Safety and Health Administration (OSHA) guidelines. Theory and practice of vascular access as designated by Infusion Nursing Standards (INS).	Prerequisites: None. Corequisites: RES130 or permission of the Program Director.		Occ	L+L 1.0 1.5 1.5
RES130	Respiratory Care Fundamentals I		Review of existing clinical data and recommendations. Data required to determine appropriateness of prescribed respiratory care plan. Administration of basic respiratory care therapeutics to include	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 4.5 3.0 3.0 LAB 0.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			medical gas administration, oxygen therapy administration, and humidity/aerosol therapy administration. Use and maintenance of select respiratory equipment. Use of communication skills during interactions with members of the health care team and patients. Ethical, legal and professional work behaviors.				
RES131	Infection Control for Respiratory Care		Techniques and procedures used by Respiratory Therapist to clean and sterilize equipment and environments, and prevent the transmission of nosocomial and other healthcare related infections.	Prerequisites: Admission into the Respiratory Care program or admission into the Polysomnographic Technology program.		Occ	LEC 1.0 1.0 1.0
RES133	Respiratory Care Clinical Seminar		Clinical application of concurrent respiratory care course work with emphasis on professionalism, medical record evaluation, communication, universal precaution, infection control, patient safety, patient assessment, age related care, cultural competence, routine hospital regulations, patient education and introduction to respiratory disease and treatment	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 2.0 2.0 2.0
RES134	Respiratory Care Pharmacology I		Pharmacologic principles related to the treatment of acute and chronic pulmonary diseases. Information on mucokinetics, anti-inflammatory, antiasthmatic and anti-infective agents to include mechanism of action, general drug	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			information, side effects, and respiratory care considerations.				
RES136	Applied Biophysics for Respiratory Care		Physical principles specific to ventilation. Laws of physics and their relationship to the respiratory system and the application of respiratory care equipment. Role of respiratory care during specific diagnostic procedures. Use of mathematical formulae.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 3.0 3.0 3.0
RES140	Respiratory Care Fundamentals II		Continuation of basic respiratory care procedures to include patient assessment and monitoring, chest physiotherapy techniques and pulmonary rehabilitation. Hyperinflation therapy, airway management and introduction to mechanical ventilation. Equipment operation, quality assurance and maintenance. Use of communications skills during interactions with health care team members and patients. Ethical, legal and professional work behaviors.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0
RES142	Respiratory Care Clinical I		Clinical application of concurrent respiratory care course work with emphasis on professionalism, medical record evaluation and performance of oxygen therapy, aerosol therapy, chest physiotherapy techniques, hyperinflation therapy, airway management devices and techniques, and observation of mechanical ventilation.	Prerequisites: Admission into the Respiratory Care program.		Occ	LAB 4.0 27.0 0.0
RES144	Introduction to Mechanical Ventilation		Introduction to mechanical ventilation including, technology, impact of the use of	Prerequisites: Admission into the Respiratory		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technology on patient physiology, and how it affects the oxygenation and ventilation ability of the patient.	Care program.			
RES220	Respiratory Care Fundamentals III		Advanced respiratory care therapy and assessment techniques to include ventilator setup and management. Diagnostic testing specific to assessment of oxygenation and ventilation and specific respiratory care procedures utilized in critical care.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 4.5 3.0 3.0 LAB 0.0 5.0 5.0
RES222	Cardiopulmonary Resuscitation Instructor		Standards of the American Heart Association for Basic Life Support. Procedures and skills for teaching cardiopulmonary resuscitation	Health care provider CPR card.		Occ	L+L 1.0 1.0 1.0
RES224	Pathophysiology for Respiratory Care		Causes of disease and their impact on the human body. Common physiologic effects of disease on body systems. Role of the respiratory therapist and the members of a multidisciplinary health care team in the diagnosis and treatment of disease. Cultural implications in prevention and treatment of disease.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 2.0 2.0 2.0
RES226	Respiratory Care Clinical II		Clinical application of all prerequisite respiratory care course work with emphasis on adult critical care and neonatal/pediatric care. Basic and critical care therapeutics, advanced patient assessment and monitoring. Assisting physician during special procedures. Increased responsibility for total patient care, work organization and time management.	Prerequisites: Admission into the Respiratory Care program.		Occ	LAB 4.0 27.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
RES230	Respiratory Care Fundamentals IV		Advanced respiratory care therapy and assessment techniques to include advanced modes of ventilation, hemodynamic monitoring, performance and interpretation of pulmonary function testing. Assisting physicians during special procedures. Development of advanced respiratory care plans and clinical research techniques. Equipment operation, quality assurance, and maintenance. Use of effective communication skills with members of the health care team and patients.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 4.5 3.0 3.0 LAB 0.0 5.0 5.0
RES232	Respiratory Care Clinical III		The study and scientific inquiry of issues and demands placed on business enterprise by owners, customers, government, employees and society. Included are social, ethical and public issues and analysis of the social impact of business responses.	Prerequisites: None.		Occ	LAB 4.0 27.0 3.0
RES235	Respiratory Care Pharmacology II		Pharmacologic principles specific to the care of the respiratory patient in the acute care environment to include the following agents: cardiac, renal, blood pressure, antithrombotic, neuromuscular, anesthetic, sedative, and analgesics. Utilization of evidence-based practice in the treatment and care of patients.	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0
RES240	Respiratory Physiology		Physiology of the respiratory, cardiovascular and renal systems as related to oxygenation and ventilation of the human body. Physiologic mechanisms of	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			breathing. Role of capillary circulation in fluid regulation. Impact of respiratory care procedures on the organ systems.				
RES270	Neonatal and Pediatric Respiratory Care		Neonatal and pediatric respiratory care to include development, anatomical and physiological differences, assessment, basic respiratory care procedures, mechanical ventilation and common disorders and conditions. Specific communication skills.	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0
RES278	Vascular Access Review		Scope of practice and regulations governing venipuncture and maintenance of vascular devices specific to the vascular access board certification credentialing examination. Anatomy and physiology of the vascular system. Administration and discontinuation of vascular devices based on best practice guidelines. The use of communication skills for different patient populations and among other healthcare providers. Ethical, legal and professional work behaviors.	Prerequisites: Current license in a medical profession or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0
RES280	Respiratory Care Review		Data interpretation, equipment operation and therapeutic procedures specified for the National Board for Respiratory Care (NBRC) Registered Respiratory Therapist (RRT) examination. Quality control and therapeutic procedures. Pharmacologic agents and treatment of cardiopulmonary collapse. Pulmonary rehabilitation and home care.	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
RES291	Respiratory Care Advanced Life Support		Airway management for the adult, patient. Endotracheal and suctioning procedures. Usage of specific medications for cardiovascular emergencies. Interpretation of electrocardiogram (ECG) dysrhythmias. Performance of defibrillation and synchronized cardioversion in simulated situations. Procedure to be followed during cardiovascular collapse. Special resuscitation techniques for adult, patients. Current American Heart Association validation in Advanced Cardiac Life Support (ACLS).	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 1.0 1.0 1.0
RES292	Respiratory Care Pediatric Advanced Life Support		Airway management for the pediatric patient. Endotracheal and suctioning procedures. Usage of specific medications for cardiovascular emergencies. Interpretation of electrocardiograms (ECG) dysrhythmias. Performance of defibrillation and synchronized cardioversion in simulated situations. Procedure followed during cardiovascular collapse in the pediatric patient. Special resuscitation techniques for pediatric patients. Current American Heart Association validation in pediatric advanced life support (PALS).	Prerequisites: Admission into the Respiratory Care program or permission from the Program Director.		Occ	LEC 1.0 1.0 1.0
RES297	Respiratory Care Seminar		Presentation of case scenarios of various patient type and disease processes. Application of general principles of	Prerequisites: Admission into the Respiratory Care		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			respiratory care to arrive at clinical solutions.	program or permission of the Program Director.			
RES298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
RES298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
RES298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
RPM132	Landscape Management	GCO132	Identification of plants commonly used in Arizona landscaping. Includes trees, shrubs, vines, flowers, and ground covers. Techniques for planting, watering, and fertilizing recreational grounds. Pest control planning.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
RPM150AA	Outdoor Adventure Skills Field Experience		Practical application of camping and outdoor skills including camping, equipment selection and use, cooking, fire building, camp programs, backpacking, and safety.	Prerequisites: None.	RPM150AA may be repeated for a total of four (4) credits.	Occ	LAB 1.0 2.0 2.0
RPM150AB	Outdoor Adventure Skills		Camping and outdoor skills including types of camping, equipment selection and use, cooking and fire building, camp programs, backpacking, and safety.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
RPM155AA	Canyoneering		Basic canyoneering skills. Includes hydrology, navigation, safety systems, climbing and hiking skills, wading/swimming techniques and flood/weather identification.	Prerequisites: None.	RPM155AA may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0
RPM155AB	Caving		Basic caving skills. Includes cave ecology, navigation, safety systems, lighting systems and equipment selection.	Prerequisites: None.	RPM155AB may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0
RPM155AC	Outdoor Rock Climbing		Basic outdoor rock climbing skills. Includes belaying, climbing techniques, rope	Prerequisites: None.	RPM155AC may be repeated for a total of	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			systems and anchor systems.		four (4) credits.		
RPM155AD	Rowing		Basic rowing skills for a four or eight person shell. Includes physical conditioning, rowing etiquette and safety, boat handling, proper rowing techniques, and teamwork.	Prerequisites: None.	RPM155AD may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0
RPM155AE	Indoor Rock Climbing		Basic indoor rock climbing skills. Includes belaying, climbing techniques, rope systems, anchor systems and safety.	Prerequisites: None.	RPM155AE may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0
RPM155AF	Backpacking		Covers basic skills and techniques of backpacking and the application of these to wilderness travel.	Prerequisites: None.	RPM155AF may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0
RPM155AG	Hiking		Development of safe and enjoyable hiking skills. Essentials and requirements for safe hiking.	Prerequisites: None.	RPM155AG may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0
RPM155AJ	Outdoor Survival		Introduction to and practice of essential skills needed for procuring shelter, water and fire in a wilderness environment.	Prerequisites: None.	RPM155AJ may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0
RPM155AK	Leave No Trace Trainer Certification		Emphasis on seven (7) Leave No Trace principles. Skills needed to effectively teach and demonstrate minimum impact techniques and outdoor ethics.	Prerequisites: None.	RPM155AK provides hands-on experiences , held in the outdoors with one overnight camping. Course instructor(s) are certified LNT Master Educators. Students who successfully complete the course become Leave No Trace	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Trainers and receive a completion certificate through the LNT Center. Basic level of fitness recommended. RMP155AK may be repeated for a total of four (4) credit hours.		
RPM240	Wilderness First Responder		Introduces and provides practical training in the essentials of medical assistance in backcountry emergencies. Includes patient assessment, first aid for trauma victims, and treatment of other medical emergencies.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
RPM271AC	Recreational Resources and Facilities Management Internship		Work experience in a recreational resources and facilities setting. Fifteen (15) hours of work weekly. Supervision and evaluation by internship coordinator.	Prerequisites: Permission of Department or Division.	RPM271AC may be repeated for a total of six (6) credit hours.	Occ	LAB 3.0 15.0 0.0
RPM282AA	Volunteerism for Recreation: A Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	RPM282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0
RPM282AB	Volunteerism for Recreation: A Service Learning Experience		Service learning field experience within private/public agencies, educational institution,	Prerequisites: Permission of Instructor.	RPM282AB may be repeated for a total of six (6) credit	Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and citizen volunteer groups.		hours. Standard grading available according to procedures outlined in catalog.		
RPM282AC	Volunteerism for Recreation: A Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	RPM282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 3.0 3.0 0.0
RPM296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of the Instructor.			
RPM296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Occ	LAB 2.0 10.0 0.0
RPM296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
RPM296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Occ	LAB 4.0 20.0 0.0
RPM298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
RPM298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
RPM298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
RUS095	Speak Russian I		Limited vocabulary and grammar to help develop fluency in Russian. Emphasis on speaking skills	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
RUS101	Elementary Russian I		Basic grammar, pronunciation, and	Prerequisites: None.	Course Attribute(s):	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			vocabulary of the Russian language. Practice of listening, speaking, reading, and writing skills		Arizona Shared Unique Number SUN#: RUS 1101		
RUS102	Elementary Russian II		Continued study of grammar and vocabulary, with emphasis on speaking, reading, and writing skills.	Prerequisites: A grade of C or better in RUS101 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0
RUS115	Beginning Russian Conversation I		Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in Russian	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
RUS201	Intermediate Russian		A continuation of RUS102. Review of essential grammar and continued practice and development of reading, writing, and speaking skills.	Prerequisites: A grade of C or better in RUS102 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: RUS 2201	Acad	LEC 4.0 4.0 4.0
RUS202	Intermediate Russian		Continued development of Russian language skills.	Prerequisites: A grade of C or better in RUS201 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: RUS 2202	Acad	LEC 4.0 4.0 4.0
RUS296WA	Cooperative Education		Work-college experiences that involve the combined efforts of	Prerequisites: Completion of at least		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			educators and employers to accomplish an outcome related to the career objectives of the students.	twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
RUS296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to student's major or career interest or with permission of the Instructor.			
RUS296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
RUS296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
RUS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
RUS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
RUS298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
SBS200	Small Business Operations		In-depth analysis of and individual plan development for the "day-to-day" problems encountered in the operation of a small business. Includes the development of an individual business operations plan including finance, purchasing, production scheduling, maintenance, shipping/receiving, personnel management and insurance/risk management requirements. Investigation of daily problems related to inventory control and business expansion	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
SBS202	Small Business Bookkeeping and Tax Preparation		Introduces accounting and record-keeping with emphasis on practical use of financial data for the successful management of a small business. Develops an	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			understanding of the accounting cycle and preparation of financial statements. Includes section on tax consequences and preparation for small business owners. Designed for the non-financially oriented owner/manager of a small business				
SBS203	Financing and Cash Management For a Small Business		Planning for and meeting the financial needs of the small business including cash flow planning, identification of financial needs and sources, equity and debt financing, and preparation of loan packages. Participants complete a financial plan for their individual company, with emphasis on cost controls, sales revenue projection, expense allocation, and inventory cost control. Day-to-day operational budgeting also included	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
SBS204	Small Business Marketing and Advertising		Introduction to marketing and advertising strategies and methods including business image, target market analysis, and customer buying behavior profile. Analysis and selection of advertising/business promotion methods and timing. Methods of deciding product and market segment focus included. Design of an individual marketing and advertising/promotion plan	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
SBS213	Hiring and Managing Employees		Methods and techniques for managing employees in a small business. Includes supervisor's role, leadership styles, interpersonal communications, staff planning, employee work	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			styles, techniques for handling problem employees, and employee motivation. Focuses on real life situations to enable the business owner to gain high performance from their employee team. Includes segment on hiring, new employee orientation, training, benefits, and developing future staffing needs assessment				
SBS214	Small Business Customer Relations		Developing and improving customer relations for the small business. Planning and delivering quality customer service. Includes topics on attitude of employees, customer perceptions and motivations, handling customer dissatisfaction, and developing customer, supplier, vendor, and distributor loyalty	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
SBS216	Planning for a Small Business		Relates business management issues to a specific small business through development of an individual study plan. Provides on-site review of business operation by trained instructor.	Prerequisites: A grade of C or better in (SBS200 and SBS204) or SBS220 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
SBS217	Starting/Managing a Home Business		Analysis of the successful operation of a home-based business. Includes study of economic feasibility, practicality, and adjustments for the family. Analysis of the advantages/disadvantages of operating a home based business, versus a "store-front" business. Review of current trends in home business opportunities and franchises. Descriptions of home businesses that have succeeded in local,	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			national, and international markets				
SBS220	Internet Marketing for Small Business		Focuses on "e-Commerce"-doing business on the Internet and planning a web site. Topics include: how the Internet can help growth and success of business; examples of successful marketing on the Internet; availability of Internet services; necessary hardware and software for marketing on the Internet; determining products/services appropriate for Internet marketing; budget constraints and on-going operations of the Internet site	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
SBS221	Social Media Marketing for Small Business		Focuses on use of Social Media for Small Businesses and Entrepreneurs. Topics include: Use of Social Media, types of Social Media, how Social Media can help growth and success of business; examples of successful Social Media marketing, setting up and deploying various types of Social Media. Options for hardware and software for Social Media, determining products/services appropriate for Social Media, Monetization of Social Media. Budget constraints and on-going monitoring and content management of Social Media.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
SBS230	Financial and Tax Management for Small Business		An overview of accounting and record-keeping for the successful management of a small business. Develops an understanding of the accounting cycle and	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			preparation of financial statements. Includes section on tax consequences and the choice of legal entity choice based on taxation				
SBS290AA	Developing a Practical Small Business Plan		Practical techniques for developing, writing, and implementing a business plan. Designed for the small business owner or manager.	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
SBS298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
SBS298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
SBS298AC	Special Projects		Organized and tailored around the interests and	Prerequisites: Permission of		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Program Director or Instructor.			
SBU200	Society and Business		The study and scientific inquiry of issues and demands placed on business enterprise by owners, customers, government, employees and society. Included are social, ethical and public issues and analysis of the social impact of business responses	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Social and Behavioral Sciences - [SB]	Occ	LEC 3.0 3.0 3.0
SCT100	Introduction to Sustainable Built Environments		Study of the built environment and implications on human health, the natural environment, and society. Understanding of strategies that achieve sustainable design. Exploration of positive and negative sustainable product attributes. Emphasis on Leadership in Energy and Environmental Design (LEED).	Prerequisites: None.	SCT100 will not complete the requirements to sit for the LEED Accredited Professional examination s. Additional study is necessary to successfully pass the LEED Green Associates	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					examination		
SEM104AA	Secondary Basic Emergency Medical Technology: Patient Assessment		Techniques of emergency medical care in accordance with national and state curriculum. Study of patient assessment.	Prerequisites: Current enrollment in the Phoenix Union High School District Current CPR (Cardiopulmonary Resuscitation) certification from the American Heart Association American Red Cross or other equivalent organization at the Healthcare Provider level meeting the American Heart Association Guidelines 2002 Proof of TB testing or chest x-ray with a negative result within 6 months prior to enrollment.		Occ	L+L 0.5 0.75 0.75
SEM104AB	Secondary Basic Emergency Medical Technology: Basic Life Support and Airway Management		Techniques of emergency medical care in accordance with national and state curriculum. Study of the use of mechanical aids for breathing and circulation, administration of oxygen, and techniques of basic life support (BLS)	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AA with a grade of C or better.		Occ	L+L 0.5 0.75 0.75
SEM104AC	Secondary Basic Emergency Medical Technology: Soft Tissue and Environmental Emergencies		Techniques of emergency medical care in accordance with national and state curriculum. Study of soft	Prerequisites: Current enrollment in the Phoenix Union High School		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			tissue and environmental injuries	District and SEM104AB with a grade of C or better.			
SEM104AD	Secondary Basic Emergency Medical Technology: Head, Brain, Neck, and Spine		Techniques of emergency medical care in accordance with national and state curriculum. Study of injuries to the head, brain, neck, and spine.	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AC with a grade of C or better.		Occ	L+L 0.5 0.75 0.75
SEM104AE	Secondary Basic Emergency Medical Technology: Shock		Techniques of emergency medical care in accordance with national and state curriculum. Study of shock, hypotension, and hypoperfusion	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AD with a grade of C or better.		Occ	LEC 0.5 0.5 0.5
SEM104AF	Secondary Basic Emergency Medical Technology: Head ,Chest, and Abdomen		Techniques of emergency medical care in accordance with national and state curriculum. Study of injuries to head, chest, abdomen, genitalia, and acute abdominal disorders	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AE with a grade of C or better.		Occ	LEC 0.5 0.5 0.5
SEM104AG	Secondary Basic Emergency Medical Technology: Medical-Legal		Techniques of emergency medical care in accordance with national and state curriculum. Includes the role and scope of the duties and practice of the Basic Emergency Medical Technician. Includes standard of care, consents, and associated statutes, rules, and regulations	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AF with a grade of C or better.		Occ	LEC 0.5 0.5 0.5
SEM104AH	Secondary Basic Emergency Medical Technology: Pediatrics		Techniques of emergency medical care in accordance with national and state curriculum. Study of the human body from birth to 12 years of age. Includes pediatric patient assessment, treatment	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AG		Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of medically or traumatically compromised patients, special hazards and abusive situations, and Sudden Infant Death Syndrome (SIDS)	with a grade of C or better.			
SEM104AI	Secondary Basic Emergency Medical Technology: Respiratory, Behavioral, Environmental		Techniques of emergency medical care in accordance with national and state curriculum. Study of acute and chronic respiratory emergencies, behavioral and environmental emergencies, and diabetic states	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AH with a grade of C or better.		Occ	L+L 0.5 1.0 1.0
SEM104AJ	Secondary Basic Emergency Medical Technology: Gynecologic or Obstetrical Emergencies		Techniques of emergency medical care in accordance with national and state curriculum. Study of gynecologic and obstetrical emergencies	Prerequisites: Currently enrolled in the Phoenix Union High School District and SEM104AI with a grade of C or better.		Occ	L+L 0.5 1.0 1.0
SEM104AK	Secondary Basic Emergency Medical Technology: Musculoskeletal Extremity Injuries		Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for stabilization and splinting of musculoskeletal injuries in extremities, including participation in two eight-hour clinical rotations through a local emergency department or an ambulance agency scheduled during the semester outside normal class hours	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AJ with a grade of C or better.		Occ	L+L 0.5 1.0 1.0
SEM104AL	Secondary Basic Emergency Medical Technology: Patient Movement and Ambulance Equipment		Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for lifting, moving, or positioning a patient, and use of ambulance/rescue vehicle equipment	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AK with a grade of C or better.		Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
SEM104AM	Secondary Basic Emergency Medical Technology: Triage Management		Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for triage and disaster management in simulated situations	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AL with a grade of C or better.		Occ	L+L 0.5 0.75 0.75
SEM104AN	Secondary Basic Emergency Medical Technology: Intravenous Fluids		Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for assessing a patient with intravenous (IV) fluids	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AM with a grade of C or better.		Occ	L+L 0.25 0.5 0.5
SEM104AO	Secondary Basic Emergency Medical Technology: Evaluations		Techniques of emergency medical care in accordance with national and state curriculum. Includes final written and practical evaluations according to the National Registry of EMTs (NREMT) and Arizona Rules and Regulations	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AN with a grade of C or better.		Occ	L+L 0.5 1.0 1.0
SEM106	Secondary Vehicular Extrication and Patient Stabilization		Participative course designed to enhance the knowledge base of the Emergency Medical Technician (EMT) and to incorporate new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene management skills, including size-up, disentanglement, victim stabilization for single- and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating	Prerequisites: Current enrollment in the Phoenix Union High School District and (a grade of C or better in SEM104AO or permission of instructor).		Occ	L+L 1.0 2.5 2.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			procedures for selected victim scenarios.				
SEM108	Secondary Trauma Patient Management		Provides exposure to victim assessment, initial treatment, resuscitative techniques, victim stabilization, victim transportation to an emergency care facility, and documentation	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AO with a grade of C or better.		Occ	L+L 0.5 2.0 2.0
SFS101AA	Secondary Introduction to Fire Service Selection: Application Process		Overview of the application and selection processes used by various fire departments and fire service organizations. Identification of the job qualifications and requirements used by various fire departments and fire service organizations	Current enrollment in the Phoenix Union High School District.		Occ	LEC 0.5 0.5 0.5
SFS101AB	Secondary Introduction to Fire Service Selection: Selection Process and Resumes		Major components of written application processes, requirements, preparation of resumes, and their effect on employment prospects	Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AA with a grade of C or better.		Occ	LEC 1.0 1.0 1.0
SFS101AC	Secondary Introduction to Fire Service Selection: Interview Process		Preparation for the interview to include communications skills, mental preparation techniques, behaviors, and the importance of the interview in the pre-employment process. Role of the applicant and interviewer in the interview process	Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AB with a grade of C or better.		Occ	LEC 1.0 1.0 1.0
SFS101AD	Secondary Introduction to Fire Service Selection: Fire Station Culture/Observation		Elements of fire service culture and their effects on personal growth and interpersonal relationships. Preparation for on-site experiences at a fire station	Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AC with a grade of C or better.		Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
SFS101AE	Secondary Introduction to Fire Service Selection: Lifelong Learning		General components of the selection process, the importance of general education, and components of lifelong learning in career choices	Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AD with a grade of C or better.		Occ	LEC 0.5 0.5 0.5
SFS102AA	Secondary Fire Department Operations: Organization and Dispatch		Introductory fire science course designed primarily for the potential fire department recruit. Includes fire department organization and dispatch.	Prerequisites: Currently enrolled in the Phoenix Union High School District.		Occ	LEC 0.25 0.25 0.25
SFS102AB	Secondary Fire Department Operations: Fire Behavior and Classes		Introductory fire science course designed primarily for the potential fire department recruit. Includes fire behavior, phases of fire, classes of fire, and fire control methods	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AA with a grade of C or better.		Occ	LEC 0.5 0.5 0.5
SFS102AC	Secondary Fire Department Operations: Fireground and Station Safety		Introductory fire science course designed primarily for the potential fire department recruit. Includes firefighter safety on the fireground and in the fire station	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AB with a grade of C or better.		Occ	L+L 0.25 0.5 0.5
SFS102AD	Secondary Fire Department Operations: Self-Contained Breathing Apparatus		Introductory fire science course designed primarily for the potential fire department recruit. Includes self-contained breathing apparatus (SCBA)	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AC with a grade of C or better.		Occ	L+L 0.25 0.5 0.5
SFS102AE	Secondary Fire Department Operations: Ropes, Knots, and Hitches		Introductory fire science course designed primarily for the potential fire department recruit. Includes ropes, knots, and hitches.	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AD		Occ	L+L 0.25 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				with a grade of C or better.			
SFS102AF	Secondary Fire Department Operations: Water Supply and Foam		Introductory fire science course designed primarily for the potential fire department recruit. Includes water supply and use of foam	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AE with a grade of C or better.		Occ	L+L 0.25 0.5 0.5
SFS102AG	Secondary Fire Department Operations: Fire Apparatus		Introductory fire science course designed primarily for the potential fire department recruit. Includes fire apparatus	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AF with a grade of C or better.		Occ	L+L 0.25 0.5 0.5
SFS102AH	Secondary Fire Department Operations: Hoses		Introductory fire science course designed primarily for the potential fire department recruit. Includes standard hose rolls, carries, and evolutions	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AG with a grade of C or better.		Occ	L+L 0.5 2.0 2.0
SFS102AI	Secondary Fire Department Operations: Hand Ladders		Introductory fire science course designed primarily for the potential fire department recruit. Includes standard hand ladder evolutions	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AH with a grade of C or better.		Occ	L+L 0.25 0.5 0.5
SFS102AJ	Secondary Fire Department Operations: Power Tools		Introductory fire science course designed primarily for the potential fire department recruit. Includes power tools.	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AI with a grade of C or better.		Occ	L+L 0.5 0.75 0.75
SFS102AK	Secondary Fire Department Operations: Building Construction		Introductory fire science course designed primarily for the potential fire department recruit.	Prerequisites: Currently enrolled in the Phoenix		Occ	L+L 0.25 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes building construction.	Union High School District and SFS102AJ with a grade of C or better.			
SFS102AL	Secondary Fire Department Operations: Forcible Entry		Introductory fire science course designed primarily for the potential fire department recruit. Includes forcible entry	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AK with a grade of C or better.		Occ	L+L 0.5 1.0 1.0
SFS102AM	Secondary Fire Department Operations: Search and Rescue		Introductory fire science course designed primarily for the potential fire department recruit. Includes search and rescue techniques	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AL with a grade of C or better.		Occ	L+L 0.5 1.0 1.0
SFS102AN	Secondary Fire Department Operations: Ventilation		Introductory fire science course designed primarily for the potential fire department recruit. Includes structure ventilation	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AM with a grade of C or better.		Occ	L+L 0.5 1.0 1.0
SFS102AO	Secondary Fire Department Operations: Salvage and Overhaul		Introductory fire science course designed primarily for the potential fire department recruit. Includes salvage and overhaul.	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AN with a grade of C or better.		Occ	L+L 0.25 1.0 1.0
SFS102AP	Secondary Fire Department Operations: Electrical Hazards		Introductory fire science course designed primarily for the potential fire department recruit. Includes electrical hazards.	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AO with a grade of C or better.		Occ	L+L 0.25 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
SFS102AQ	Secondary Fire Department Operations: Radiological Hazards		Introductory fire science course designed primarily for the potential fire department recruit. Includes radiological hazards	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AP with a grade of C or better.		Occ	L+L 0.25 0.5 0.5
SFS102AR	Secondary Fire Department Operations: Special Emergencies		Introductory fire science course designed primarily for the potential fire department recruit. Includes special emergencies	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AQ with a grade of C or better.		Occ	L+L 0.5 1.0 1.0
SFS102AS	Secondary Fire Department Operations: Physical and Mental Fitness		Introductory fire science course designed primarily for the potential fire department recruit. Includes physical and mental fitness	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AR with a grade of C or better.		Occ	LEC 0.5 0.5 0.5
SFS102AT	Secondary Fire Department Operations: Prevention and Investigation		Introductory fire science course designed primarily for the potential fire department recruit. Includes prevention and investigation.	Prerequisites: Currently enrolled in the Phoenix Union High School District and a grade of C or better in SFS102AS.		Occ	LEC 0.5 0.5 0.5
SFS102AU	Secondary Fire Department Operations: Code Violation		Introductory fire science course designed primarily for the potential fire department recruit. Includes code violation	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AT with a grade of C or better.		Occ	LEC 0.25 0.25 0.25
SFS102AV	Secondary Fire Department Operations: Incident Organization and Communication		Introductory fire science course designed primarily for the potential fire department recruit. Includes incident	Prerequisites: Currently enrolled in the Phoenix Union High School		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			organization and communication	District and SFS102AU with a grade of C or better.			
SFS102AW	Secondary Fire Department Operations: Tactical Priorities		Introductory fire science course designed primarily for the potential fire department recruit. Includes tactical priorities	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AV with a grade of C or better.		Occ	LEC 1.0 1.0 1.0
SFS102AX	Secondary Fire Department Operations: Structural Fires		Introductory fire science course designed primarily for the potential fire department recruit. Includes operations applied to structural fires	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AW with a grade of C or better.		Occ	L+L 0.5 1.0 1.0
SFS102AY	Secondary Fire Department Operations: Evaluations		Introductory fire science course designed primarily for the potential fire department recruit. Includes final written evaluation and International Fire Service Accreditation Congress Practical Skills Validation.	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AX with a grade of C or better.		Occ	L+L 0.25 1.0 1.0
SFS134AA	Secondary Fitness and Conditioning for Firefighters: Physical Requirements		Overview of firefighters' physical fitness, nutrition, and protective clothing	Current enrollment in the Phoenix Union High School District.		Occ	LEC 0.5 0.5 0.5
SGT100	Fundamentals of Surgical Services	HCS100	Preparation for the Certified Registered Central Service Technician (CRCST) role. Central Service work flow, job responsibilities, growth and development in the field, anatomy and physiology, microbiology for Central Service regulations and standards, infection prevention and control, tools for cleaning, decontamination,	Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director.		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			cleaning and decontamination, disinfection, sterile packaging and storage, processing, sterilization, management of patient care equipment, tracking systems, quality assurance, safety, communication, sterile processing for ambulatory surgery and clinics.				
SGT101	Medical Terminology for Surgical Services	HCS101	Medical Terminology for patient care in surgery related areas. Use of word parts, term spelling, pronunciation and abbreviations related to all surgical specialties.	Prerequisites: None. Corequisites: HCS/SGT100		Occ	LEC 1.0 1.0 1.0
SGT102	Basic Surgical Instrumentation for Surgical Services	HCS102	History, construction and assembly of surgical instrumentation, categories, instrument set assembly, soft tissue foundation sets, general surgery instrumentation sets.	Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
SGT105	Surgical Technology Pre-Clinical		Direct observation of principles and culture of operating room. Traffic patterns, aseptic techniques, roles, professional surgical team work, instrument handling, safety precautions with regard to exposure, surgical attire, surgical regimen and chain of command.	Prerequisites: A grade of C or better in BIO205 and PHY101.		Occ	LEC 1.0 0.5 0.5 LAB 0.0 1.5 1.5
SGT107	Equipment and Supplies for Surgical Services	HCS107	Introduction to the surgical equipment and supplies used in surgical services areas.	Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or		Occ	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				permission of the Program Director.			
SGT135	Instrument Handling I		Classification of surgical instruments for general surgery including basic laparoscopy, appendectomy, breast procedures, cholecystectomy, colon resection, gastrectomy, hemorrhoidectomy, herniorrhaphy, laparoscopic Nissen fundoplication, liver resection, splenectomy, thyroidectomy, Whipple procedure. Common and proper names for instruments in general surgery. Introduction to aseptic technique for handling instruments. Specific uses, handling, and care for surgical instruments in general surgery.	Prerequisites: None. Corequisites: HCS/SGT102 or permission of Program Director.		Occ	L+L 3.0 4.0 4.0
SGT152	Advanced Surgical Instruments for Surgical Services	HCS152	Surgical specialty instrumentation care and assembly of instruments to include plastic, gynecologic, urologic, basic bone and joint, head and neck, neurosurgery, cardiovascular and thoracic, microscopic, endoscopes, stapling guns, and robotics procedures.	Prerequisites: A grade of C or better in HCS/SGT102		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
SGT155	Instrument Handling II		Classification of specialized surgical instruments for surgical specialties including obstetric and gynecological procedures, genitourinary, otorhinolaryngology, orthopedic, oral and maxillofacial, plastic and reconstructive, ophthalmic, cardiothoracic, peripheral vascular, and neurosurgery. Common	Prerequisites: A grade of C or better in SGT135.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and proper names for instruments in the surgical specialties. Specific uses, handling, and care for surgical instruments in the surgical specialties.				
SGT156	Hospital Central Service Practicum for Surgical Technology		Short-term supervised student observation and application for 40 hours of central service theory and laboratory skills. Exposure to limited compilation of case carts, building of instrument trays, distribution of supplies, sterilization and inventory.	Prerequisites: A grade of C or better in HCS/SGT102 or permission of Program Director. Corequisites: HCS/SGT152 or permission of Instructor.		Occ	LAB 0.5 1.5 0.0
SGT165	Surgical Procedures I		General Surgery arena procedures. Pre-operative procedures to include patient's charts and consent forms. Common diagnostic procedures prior to surgery. Operating room admission procedures and interview, charting, and checklist. Purpose of the post anesthesia care unit (PACU). Impact of specific chronic illnesses on body functions. Issues pertaining to death and dying. Special considerations for the pediatric and geriatric patient.	Prerequisites: A grade of C or better in SGT135.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0
SGT180	Pharmacology for Surgical Technology I		Role of surgical technologist in safe handling of drugs according to operating room policies and procedures. Uses and classification of drugs. Federal and state pharmacy regulations applicable to the surgical patient. Complications and safety issues during topical, local, regional, and general anesthesia. Antibiotic, diagnostic agent, and hemostatic	Prerequisites: A grade of C or better in SGT135.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			agent administration in the surgical specialties of obstetrics, peripheral vascular, orthopedics, and oncology.				
SGT200	Operating Room Practicum I		Roles and responsibilities of operating room personnel focusing on the surgical technician under the direction of the clinical facility preceptor demonstrating the role of the surgical technologist and scope of practice and standard of recommendations.	Prerequisites: A grade of C or better in SGT165.		Occ	LAB 1.0 6.0 0.0
SGT205	Operating Room Practicum II		Reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties.	Prerequisites: A grade of C or better in SGT200.		Occ	LAB 2.0 12.0 0.0
SGT208	Perioperative Case Management		Pre-operative procedures to include patient's charts and consent forms. Common diagnostic procedures prior to surgery. Operating room admission procedures and interview, charting, and checklist. Purpose of the post anesthesia care unit (PACU). Impact of specific chronic illnesses on body functions. Issues pertaining to death and dying. Special considerations for the pediatric and geriatric patient. Includes a clinical observation experience.	Prerequisites: A grade of C or better in SGT105.		Occ	LEC 1.0 0.5 0.5 LAB 0.0 1.5 1.5
SGT210	Surgical Procedures II		General surgical procedures to include ophthalmic, plastic surgery, reconstruction with grafting, obstetric, gynecological, genitourinary,	Prerequisites: A grade of C or better in SGT165.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			otorhinolaryngology, oral and maxilla facial surgery with lasers and scopes. Surgical techniques as applied to major body systems, anatomical structures. Related abbreviations and usage in the pre-operative, intra-operative and post-operative areas of surgical technology. Surgical care provided by the surgical technologist in the perioperative arena.				
SGT220	Operating Room Practicum III		Intermediate level reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties.	Prerequisites: A grade of C or better in SGT205.		Occ	LAB 3.0 15.0 0.0
SGT225	Operating Room Practicum IV		Advanced level reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties.	Prerequisites: A grade of C or better in SGT220.		Occ	LAB 3.0 15.0 0.0
SGT227	Operating Room Practicum V		Continued advanced level reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties.	Prerequisites: A grade of C or better in SGT225.		Occ	LAB 3.0 15.0 0.0
SGT230	Surgical Technology Materials Update	PON230	Current surgical technology materials. Surgical specialty modifications, introductions, technology. Specific uses, handling,	Prerequisites: Currently enrolled in Surgical Technology or Surgical Technology		Occ	LEC 2.0 2.0 2.0 LAB 1.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			application to surgical procedures.	for the Operating Room Nurse program, or Certified Surgical Technologist, or permission of Program Director.			
SGT260	Surgical Procedures III		Specialized surgical procedures of orthopedic, peripheral vascular, cardiovascular, thoracic and neurosurgery to include applications with lasers and scopes. Surgical techniques as applied to major body systems, anatomical structures. Related abbreviations and usage in the pre-operative, intra-operative and post-operative surgical arenas. Care provided by the surgical technologist in each phase of surgery.	Prerequisites: A grade of C or better in SGT210.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0
SGT275	Certification Examinations Preparation		Preparation for the National Surgical Technology Certification Examination. Review of the content specifications, techniques for preparation and review of current literature determined by the Liaison Council on Certification for Surgical Technologists. Exploration of career possibilities.	Prerequisites: A grade of C or better in SGT210 or permission of the Program Director.		Occ	L+L 2.0 3.0 3.0
SGT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
SGT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
SGT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
SLC201	Introduction to Linguistics		Introduction to the study of language. Study of the	Prerequisites: None.	Course Attribute(s):	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			nature and diversity of world languages, linguistic structures and functions of language, language variation, pragmatics and the learning/acquisition of first and second languages.		General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Social and Behavioral Sciences - [SB]		
SLC202	Introduction to Literary and Cultural Theory		Introduction to the study of literary and cultural theory. Interdisciplinary approaches to analyzing literary texts for context, meaning and form. Assessment of various literary genres which may include fiction, film, visual arts and performance.	Prerequisites: A grade of C or better in ENG101 or ENG107. Corequisites: ENG102 or ENG108.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
SLP104	Speech, Language, and Hearing Development		Provides an overview of the normal development of human communication. Emphasis on normative processes involved in speech, language, and hearing development. Examines the impact of multicultural, multi-linguistic environments on speech and language development.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SLP205	Introduction to Communication Disorders		Explore a variety of communication disorders in children and adults that speech-language pathologists diagnose and treat. Provides an introduction to typical versus disordered communication, the causes, characteristics of a variety of speech, language, hearing, and	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			swallowing disorders, and the effects that they can have on those afflicted with them.				
SLP210	Speech and Hearing Anatomy and Physiology		Provides a review of the anatomical systems of respiration, phonation, articulation and resonance and hearing and their relationship to pathologies of speech, language and hearing. Includes basic physiology of systems and the neuroanatomy and neurophysiology related to speech and hearing production mechanisms. Examines the physical characteristics of sound and the structure and function of the human auditory system.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SLP212	Language Disorders and Rehabilitation		Examines the nature, causes and treatment of language disorders across the lifespan. Focuses on developmental and acquired language disorders in childhood through adulthood. Includes multicultural/multilingual issues and therapy observations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SLP214	Speech Sound Disorders and Phonetics		Provides an overview of English phonetics and phonetic transcription including practice with transcription of normal and disordered speech at the entry-level using the International Phonetic Alphabet (IPA). Examines the nature, causes, characteristics and treatment of a variety of speech sound disorders across the lifespan including phonological processes/disorders, articulation, dysarthria, apraxia, and other	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			organic disorders. Includes multicultural/multilingual issues and therapy observations.				
SLP215	Speech, Language, Hearing Disorders and Rehabilitation		Examines the nature, causes, and treatment of a variety of speech, language, hearing disorders. Focuses on fluency, voice, hearing, and swallowing/feeding disorders. Expands on language disorders in adolescents and young adults including metacognition and cognitive strategies. Includes therapy observations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SLP217	Clinical Ethics and Documentation		Examines issues associated with professional and ethical behaviors, including the Speech Language Pathology Assistant (SLPA) scope of practice as specified by state and national governing bodies for the profession. Focuses on indirect activities related to client treatment including creation of lessons, implementation of treatment, and documentation. Includes an overview of universal safety precautions, confidentiality, compliance with laws/regulations, and service delivery options in both the educational and health care systems.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SLP218	Behavior Management		Examines a variety of behavior principles, strategies and techniques used with individuals with communication disorders. Focuses on setting up a positive learning environment, increasing motivation and attention, and using	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Positive Behavioral Interventions and Supports (PBIS) with clients.				
SLP235AA	Speech-Language Pathology Practicum		Practical experience in completing clinical fieldwork as a Speech Language Pathology Assistant (SLPA). Provides opportunity to create lesson plans, implement therapy, record client performance and maintain appropriate documentation for a variety of speech-language disorders in a therapeutic environment. A minimum of 50 hours for the clinical interaction experience in this course is required.	Prerequisites: None.	SLP235AA may be repeated for a total of two (2) credit hours.	Occ	L+L 1.0 1.0 1.0
SLP235AB	Speech-Language Pathology Practicum		Practical experience in completing clinical fieldwork as a Speech Language Pathology Assistant (SLPA). Provides opportunity to create lesson plans, implement therapy, record client performance and maintain appropriate documentation for a variety of speech-language disorders in a therapeutic environment. A minimum of 100 hours for the clinical interaction experience in this course is required.	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0
SLP240	Assistive Technology and Augmentative Communication		Examines the use of Assistive Technology (AT) and Augmentative Alternative Communication (AAC) systems within various environments to support functional interaction with individuals with disabilities. Focuses on a variety of guiding principles, strategies, accommodations, modifications, computer	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			hardware and software as well as low-tech and high-tech AT and AAC systems. Provides guidelines for need identification and implementation of AT and AAC systems within therapeutic and natural environments.				
SLP242	Low Incidence Disabilities		Examines disabilities with a focus on treatment techniques for low incidence disabilities. Focuses on blindness, deafness, moderate to severe intellectual disability, complex health issues, serious motor and physical impairment, multiple disabilities, genetic syndromes, moderate to severe autism, and social emotional disabilities. Includes therapy observations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SLP296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				students major or career interest or with permission of Instructor.			
SLP296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
SLP296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
SLP296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
SLP298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
SLP298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
SLP298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
SOC101	Introduction to Sociology		The systematic study of social behavior and human groups, particularly the influence of culture, socialization, social structure, stratification, social institutions, differentiation by region, race, ethnicity, sex/gender, age, class, and socio/cultural change upon people's attitudes and behaviors.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: SOC 1101	Acad	LEC 3.0 3.0 3.0
SOC105	Introduction to American Indian Studies	AIS105	Introduction to political, economic, and social structures of American Indian Nations. Provides overview of American Indian tribal cultures prior to contact, the impact of European contact, and the influence of western social systems on tribal nations.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SOC110	Drugs and Society		Provides a sociological understanding of drug use and policy. Examines social-cultural factors contributing to use and abuse and effects of commonly used drugs on the individual and society. Reviews current theories and research relating to drug use. Introduces extensive coverage of various methods and statistics for measuring drug use. Explores prevention, intervention, and treatment. Examines public policies concerning drug related issues.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
SOC112	American Indian Policy	AIS112	Reviews United States government policies and their impact on American Indian sovereignty. Examines historic, legal, economic, and social issues regarding Indian policies and how they impact Indian Nations and individual Indians. Studies historical as well as contemporary policies created by the Federal Government that define the trust relationship between the United States government and Indian Nations	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SOC130	Human Sexuality		Sociological study of human sexuality. Course examines the social forces that shape a culture's sexual practices, attitudes, and inequalities. Topics include the social construction of sexuality, social change, sexual identities, sexual inequalities, institutional influence and regulation of sexuality, as well as current trends and issues surrounding human sexuality.	Prerequisites: None.	SOC130 contains mature adult content and some of the topics discussed may be considered "controversial" or "taboo" in some societies and cultures. Students are expected to be able to engage with the content in a respectful and open-minded way.	Acad	LEC 3.0 3.0 3.0
SOC141	Sovereign Indian Nations	AIS141	Explores the sovereign status of American Indians as it relates to social relationships, traditions, and culture of American Indians. Reviews historic relations with non-Indian societies, the development of federal	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Indian law, tribal governments and their functions. Examines treaty rights, environmental issues, public policy, economic development, other current issues, and contemporary social problems		: Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]		
SOC143	Sociology of African American Problems		Social, economic, political and domestic problems encountered by African Americans in typical urban environments. Emphasis on the specific dynamics of adjustment, survival and empowerment of urban African Americans	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SOC157	Sociology of Families and Relationships		Systemic analysis of socio-cultural and historical origins of modern families in the U.S. and their importance, major challenges and changing trends. Explores being single, dating and attraction, love, cohabitation and marriage, family planning and parenthood, conflict and crisis within the family, and divorce.	Prerequisites: None.	General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
SOC160	American Indian Law	AIS160	Analyzes the legal system of the United States Government as it applies to American Indian Nations. Examines how United States legal institutions have impacted Indian sovereignty. Units of analysis include the development of Indian law, United States Supreme Court decisions, Congressional Acts, treaty rights and the development of tribal governments. Focuses on legal institutions that have abridged the	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H]	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			property rights of Indian Nations.				
SOC180	Social Implications of Technology		Effects of development and implementation of technology on society. Historical and multi-cultural comparisons of this process, current concerns addressed, and prospects for the future analyzed.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SOC212	Gender and Society		A sociological analysis of the way culture shapes and defines the positions and roles of both men and women in society. Major emphasis on social conditions which may lead to a broadening of gender roles and a reduction of gender role stereotypes and the implications of these changes.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
SOC220	Sport and Society		Applies the sociological perspective to the study of sport. Emphasizes how hierarchies of race, class, and gender in the United States impact the sport experience of fans, athletes, and athletic administrators, as well as how professional, collegiate, and amateur sports have at times played a transformative role in society.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social & Behavioral Science - [SB]	Acad	LEC 3.0 3.0 3.0
SOC241	Race and Ethnic Relations		Examines how the social construction of race shapes social interaction and social institutions. Explores the consequences of power, privilege and oppression among major ethnic and racial groups in the United States.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Social and Behavioral Sciences - [SB] Arizona Shared Unique	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					Number SUN#: SOC 2215		
SOC245	Social Deviance		A sociological analysis of social deviance including a review of theories, individual and social implications of deviant labeling, and relevant aspects of social control.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SOC251	Social Problems		An overview of the sociological study of social problems and inequalities confronting the United States. Emphasis is placed on what is known about social problems, recent trends, causes and consequences, individual and societal responses, and how social policies might solve social problems. Issues to be examined may include: health care, education, family, economy, environment, drug and alcohol abuse, crime and violence, among others.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SOC253	Social Class and Stratification		Focus on the class structure of American Society. Effects of social class position on individual life chances. The occurrence, causes and consequences of poverty in the United States.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SOC265	Sociology of Aging		Examination of the aging process from post adolescence through old age from interdisciplinary and multicultural perspectives. Emphasis on positive participation in major social institutions and the amelioration of age-related problems	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SOC266	Sociology Through Film		Examines movie-going and the experience of spectatorship. Studies how motion pictures reflect, influence, and	Prerequisites: None.	Course Attribute(s): General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			are influenced by American culture and societal institutions. Explores the role of the movie industry as a vehicle for social commentary, analysis, and criticism.		: Social & Behavioral Sciences - [SB]		
SOC270	The Sociology of Health and Illness		The scientific study of the social patterns and social factors (e.g., class, race, gender, religion, ethnicity, kinship networks, marriage, educational status, age, place, and cultural practices) that influence health. The roles of health care providers and patients, various modalities of treatment, prevention and access, and the history, current status, future trends in medicine and medical technology, and complementary health care approaches from a cross-cultural and global sociological perspective.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SOC282AA	Service-Learning Experience in Sociology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: A grade of C or better in SOC101 and permission of Instructor.	SOC282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
SOC282AB	Service-Learning Experience in Sociology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: A grade of C or better in SOC101 and permission of Instructor.	SOC282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					outlined in catalog.		
SOC282AC	Service-Learning Experience in Sociology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: A grade of C or better in SOC101 and permission of Instructor.	SOC282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
SOC296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
SOC296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to	Prerequisites: Completion of at least twelve (12) college credits		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the career objectives of the students.	minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
SOC296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career interest or with permission of the Instructor.			
SOC296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0
SOC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to maximize student development. COMMON COMPETENCY COURSE				
SOC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
SOC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
SPA055	Fundamentals of Spanish Grammar		Introduces basic concepts of Spanish pronunciation and grammar for successful study of the language. Emphasis on grammar, sentence structure, and practice of simple dialogues	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
SPA085AA	Speedy Spanish I		Basic vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
SPA085AB	Speedy Spanish II		Intermediate development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills.	Prerequisites: A grade of C or better in SPA085AA. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0
SPA085AC	Speedy Spanish III		Advanced development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills.	Prerequisites: A grade of C or better in SPA085AB. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0
SPA095	Speak Spanish I		Limited vocabulary and grammar to help develop fluency in Spanish. Emphasis on speaking skills	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
SPA096	Speak Spanish II		Limited vocabulary and grammar to help develop fluency in Spanish. Emphasis on speaking skills.	Prerequisites: A grade of C or better in SPA095. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0
SPA097	Speak Spanish III		Limited vocabulary and grammar to help develop fluency in spoken Spanish. Emphasis on speaking skills; some written work required.	Prerequisites: A grade of C or better in SPA096. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0
SPA101	Elementary Spanish I		Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of the Spanish-speaking	Prerequisites: None.	Course Attribute(s): General Education Designation : Global	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			cultures. Practice of listening, speaking, reading, and writing skills		Awareness - [G] in combination with SPA102. Arizona Shared Unique Number SUN#: SPA 1101		
SPA101AA	Elementary Spanish I		Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of the Spanish-speaking cultures. Practice of listening, speaking, reading, and writing skills.	Prerequisites: None.	Course Attributes: General Education Designation : Global Awareness - [G]	Acad	L+L 4.0 5.0 5.0
SPA102	Elementary Spanish II		Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills.	(A grade of C or better in SPA101 or SPA101AA), or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] in combination with SPA102. Arizona Shared Unique Number SUN#: SPA 1102	Acad	LEC 4.0 4.0 4.0
SPA102AA	Elementary Spanish II		Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills.	(A grade of C or better in SPA101 or SPA101AA), or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attributes: General Education Designation : Global Awareness - [G]	Acad	L+L 4.0 5.0 5.0
SPA103	Elementary Spanish for Spanish Speakers I		Review of basic Spanish grammar and pronunciation. Emphasis on reading and writing	Spanish-speaking or permission of		Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			skills in Spanish. For native speakers needing review of essential language skills	Department or Division.			
SPA104	Elementary Spanish for Spanish Speakers II		Continued review of grammatical problems in speaking and writing and reading in Spanish.	Prerequisites: A grade of C or better in SPA103 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0
SPA109	Law Enforcement Spanish I		Conversational and written Spanish for law enforcement personnel. Emphasis on basic sentence structure, pronunciation and vocabulary used in common job-related situations.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SPA111	Fundamentals of Spanish		Accelerated study of elementary Spanish for students with previous Spanish coursework. Includes basic Spanish grammar, pronunciation, vocabulary and the study of the Spanish- speaking cultures. Emphasis on speaking, listening, reading, and writing skills.	Prerequisites: A grade of C or better in SPA101 or SPA101AA or SPA115 or SPA115AA or two years of high school Spanish or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0
SPA115	Beginning Spanish Conversation I		Basic pronunciation, vocabulary, sentence structures, and cultural awareness, necessary to develop speaking and listening skills in Spanish	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SPA115AA	Beginning Spanish Conversation I		Conversational Spanish. Basic sentence structure, pronunciation and vocabulary	Prerequisites: None.		Acad	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			necessary to develop speaking ability in Spanish. Designed for students seeking speaking and listening abilities with little emphasis on grammar				
SPA116	Beginning Spanish Conversation II		Continued study of basic pronunciation, vocabulary, sentence structures, and a cultural awareness necessary to develop speaking and listening skills in Spanish.	Prerequisites: A grade of C or better in SPA115 or SPA115AA or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
SPA116AA	Beginning Spanish Conversation II		Continued development of speaking and listening skills for effective communication in Spanish.	Prerequisites: A grade of C or better in SPA115 or SPA115AA or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	L+L 3.0 4.0 4.0
SPA117	Health Care Spanish I		Basic conversational Spanish for health care workers or students. Emphasis on basic sentence structure, pronunciation and vocabulary used in health care settings.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SPA117AA	Health Care Spanish I: Introduction		Part one of basic medical terminology in Spanish for health care personnel or students. Emphasis on pronunciation and vocabulary needed in health care setting, including coverage of routine information gathered	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
SPA117AB	Health Care Spanish I: Intermediate		Part two of basic Spanish communication for health care personnel or students. Emphasis on pronunciation and vocabulary needed in health care settings, including medications and their use.	Prerequisites: A grade of C or better in SPA117AA or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0
SPA118	Health Care Spanish II		Basic conversational Spanish for health care personnel or students. Emphasis on basic sentence structure, pronunciation, and vocabulary used in health care settings.	Prerequisites: A grade of C or better in SPA117 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
SPA119	Spanish for Educational Settings I		Basic conversational Spanish for teachers, counselors, administrators and other school personnel. Emphasis on basic sentence structure, pronunciation and vocabulary used in educational settings	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SPA120	Spanish for Educational Settings II		Basic conversational Spanish for teachers, counselors, administrators and other school personnel. Continuation of SPA119, expanding into secondary and post-secondary educational settings. Emphasis on basic sentence structure, pronunciation and vocabulary.	Prerequisites: A grade of C or better in SPA119 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
SPA130	Spanish for First Responders and 911 Emergencies		Beginning conversational Spanish for first responders and 911 emergency personnel. Emphasis on basic sentence structure,	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			pronunciation, vocabulary, and cultural awareness necessary to develop Spanish speaking and listening skills in medical and non-medical emergencies.				
SPA201	Intermediate Spanish I		Continued study of essential Spanish grammar and Spanish-speaking cultures. Continued practice and development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish.	Prerequisites: A grade of C or better in SPA102, or SPA102AA, or SPA111, or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: SPA 2201	Acad	LEC 4.0 4.0 4.0
SPA202	Intermediate Spanish II		Review of grammar, continued development of Spanish language skills with continued study of the Spanish-speaking cultures.	A grade of C or better in SPA201, or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] Arizona Shared Unique Number SUN#: SPA 2202	Acad	LEC 4.0 4.0 4.0
SPA203	Spanish for Spanish-Speaking Students I		Designed for Spanish-speaking students. Emphasis on written composition, grammar review, punctuation and spelling, literature and conversation. May be taken in lieu of SPA201.	Prerequisites: Permission of Instructor or Department Chair.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Global Awareness - [G]	Acad	LEC 4.0 4.0 4.0
SPA204	Spanish for Spanish-Speaking Students II		Designed for Spanish-speaking students. Advanced study of Spanish grammar,	Prerequisites: A grade of C or better in SPA203 or SPA201 or	SPA204 may be taken in lieu of SPA202. Course	Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			composition, literature, and conversation.	permission of Department or Division. Completion of prerequisites within the last three years is required.	Attribute Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Global Awareness - [G]		
SPA205	Spanish for Medical Interpretation I		Introduction to Spanish interpretation for medical interpreters. Covers code of ethics, national standards and medical interpreter's responsibilities as well as cultural awareness and legal issues. Interpretation for first responders included.	Prerequisites: A grade of B or better in SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
SPA206	Spanish for Medical Interpretation II		Continuation of Spanish interpretation for medical interpreters. Medical vocabulary and translation relating to human anatomy and physiology emphasized.	Prerequisites: A grade of B or better in SPA205 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
SPA217	Spanish for Business Communication		Continued development of Spanish language skills with emphasis on topics related to conducting business in Spanish-speaking cultures.	Prerequisites: A grade of C or better in GBS151 and (SPA201 or permission of Department or Division). Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0
SPA225	Intermediate Spanish Conversation I		Continued study of vocabulary, sentence	Prerequisites: A grade of C		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			structures, and cultural awareness necessary to improve speaking and listening skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish.	or better in SPA102 or SPA102AA or SPA116 or SPA116AA or permission of Department or Division. Completion of prerequisites within the last three years is required.			
SPA226	Intermediate Spanish Conversation II		Continued study of vocabulary, sentence structures, and cultural awareness necessary to improve speaking and listening skills in increasingly complex Spanish. Emphasis on fluency and moderate accuracy in spoken Spanish.	Prerequisites: A grade of C or better in SPA201 or SPA225 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
SPA235	Advanced Spanish Conversation I		Continued development of skills in conversational fluency. Class conducted completely in Spanish.	Prerequisites: A grade of C or better in SPA226 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
SPA236	Advanced Spanish Conversation II		Further development of skills in conversational fluency. Grammar presented only to clarify student errors.	Prerequisites: A grade of C or better in SPA235 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
SPA237	Spanish Legal Terminology		Emphasis on legal terminology, including specific vocabulary and linguistic structures. Conducted entirely in Spanish.	Prerequisites: A grade of C or better in SPA202, or equivalent, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0
SPA241	Spanish and Spanish-American Film I		Analysis of Spanish and Spanish-American film as art form and as social commentary. Includes documentary, biography, and films based on works of literature. All films, coursework, class participation, and oral and written reports conducted in Spanish.	Prerequisites: A grade of C or better in SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
SPA242	Spanish and Spanish-American Film II		Analysis and critique of movies presented in the Spanish language and produced by cinematographers from Bolivia, Paraguay, Venezuela, Ecuador, Puerto Rico, Costa Rica and the Mexican independent film producers. Includes documentary, biography, and works of literature and their film versions as art form and social commentary.	Prerequisites: A grade of C or better in SPA241 or permission of Department or Division. Completion of prerequisites within the last three years is required.	All SPA242 coursework, class participation , oral and written reports are in Spanish. Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
SPA251	Spanish Civilization		An introduction to Spanish civilization with a focus on the culture of Spain. History of Spain and each period's cultural manifestations, including economic, sociological, and political factors as well as	Prerequisites: Four years of high school Spanish or a grade of C or better in SPA202 or permission of Department		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			cultural artifacts such as architecture, literature, visual arts, music, and gastronomy.	or Division. Completion of prerequisites within the last three years is required.			
SPA265	Advanced Spanish I		Introduction and study of Spanish and Spanish-American literature. Selected readings from most Spanish-speaking countries. All discussions, oral reports, and written assignments are in Spanish.	Prerequisites: A grade of C or better in SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
SPA266	Advanced Spanish II		Further study of Spanish and Spanish-American literature. Reading selections from most Spanish-speaking countries. All oral reports, discussions, and written reports in Spanish. Graduated level of difficulty from the literature studied in SPA265.	Prerequisites: A grade of C or better in SPA265 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
SPA282AA	Service-Learning Experience in Spanish		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	SPA282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
SPA282AC	Service-Learning Experience in Spanish		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	SPA282AC may be repeated for a total of six (6) credit hours. Standard grading available	Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					according to procedures outlined in catalog.		
SPA296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
SPA296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students		Acad	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
SPA296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
SPA296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish	Prerequisites: Completion of at least twelve (12) college		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			an outcome related to the career objectives of the students.	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
SPA298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
SPA298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
SPA298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
SPE341	Special Education: Language Development and Disorders		Language development and language acquisition of typical children and children with disabilities. Includes language characteristics of children with a variety of disabilities and the creation of enhanced learning experiences in the classroom. Covers augmentative and alternative communication tools. Also compares language disorders and language differences.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.		Acad	LEC 2.0 2.0 2.0
SPE343	Special Education: Effective Collaboration and		Focuses on principles of effective collaboration, consultation, and co-	Prerequisites: Formal acceptance		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Communication Practices		teaching to improve programs, services, and outcomes for students with disabilities and their families. Topics include interpersonal communication strategies and collaboration tools for working with diverse groups of people.	to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.			
SPE376	Special Education: Classroom Management and Behavioral Analysis		Application of research-based strategies in classroom management and behavioral analysis. Focuses on the classroom as a multidimensional environment in which principles of design, communication, management, and resources determine behavioral management success. Emphasis on positive behavior supports, group dynamics, student motivation, discipline models, and current research findings related to classroom management and behavior analysis.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. EDU221 recommended but not required.	SPE376 requires field experience in a K-12 classroom.	Acad	LEC 3.0 3.0 3.0
SPE409	Special Education: Law, Policy, and Practice		Overview of special education legislation and litigation as it applies in K-12 settings. Examines federal and state level statutes and regulations, including the Individuals with Disabilities Education Act (IDEA), the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act of 1973. Covers regulations governing assessment and evaluation procedures, due process, mediation, manifestation determination, and disciplinary action. Emphasis on the	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. EDU222 recommended but not required.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development, implementation, and evaluation of individual education plans (IEPs), free appropriate public education (FAPE), and least restrictive environment (LRE). Focuses on students' and parents' legal rights and schools' responsibilities regarding special education. The Council for Exceptional Children (CEC) Code of Ethics will be examined.				
SPE422	Special Education: Mild to Moderate Disabilities		Application of research-based instruction in special education, including lesson planning, instructional design, assessment accommodations, modification, strategies, and materials appropriate for teaching individuals with mild to moderate disabilities in a variety of educational settings. Covers characteristics, etiologies, legal and educational provisions.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.	SPE422 requires an approved field experience.	Acad	LEC 4.0 4.0 4.0
SPE424	Special Education: Assessment and Eligibility of Exceptional Learners		Examines eligibility criteria for students to receive and maintain special education and related services. Overviews nondiscriminatory assessments and adaptive behavior measurements, including educational achievement tests, standardized diagnostic tests, and intelligence tests, as well as the concepts, laws, current issues, and procedures that relate to formal and informal assessment of students. Analyzes the relationship between assessment data and instruction.	Prerequisites: Formal acceptance to a Maricopa Community College undergraduate state approved teacher preparation program or permission of Department or Division.		Acad	LEC 4.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
SPE477	Student Teaching: Special Education (Mild to Moderate Disabilities)		Supervised student teacher practicum in a K-12 special education setting. Students are expected to demonstrate appropriate assessment strategies, develop lesson plans, implement instructional strategies, and utilize behavior management systems and programs. Emphasis on the provision of individualized instruction to meet the requirements of Individuals with Disabilities Education Act (IDEA).	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.	SPE477 requires a minimum of eight (8) weeks, full-time classroom instruction.	Acad	LAB 6.0 6.0 0.0
SPH241	Spanish and Latin American Film in Translation		A survey of Spanish and Spanish-American film as art form and as social commentary. Includes documentary, biography, and films based on works of literature. Coursework, class participation, and oral and written reports conducted in English.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
SPH245	Hispanic Heritage in the Southwest		A survey of Hispanic heritage in the Southwest. Cultural and social institutions and their contribution to the development of the region and its heritage	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SPH296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
SPH296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
SPH296WC	Cooperative Education		Work-college experiences that involve the combined efforts of	Prerequisites: Completion of at least		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			educators and employers to accomplish an outcome related to the career objectives of the students.	twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
SPH296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				related to student's major or career interest or with permission of the Instructor.			
SPH298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
SPH298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
SPH298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
SPT265	Theory of Coaching		Discusses the impact of sports on the American culture, legal liabilities of coaching, principles of a coaching philosophy, the role of teaching skill, physical conditioning and nutrition in coaching, components of team/group psychology and dynamics, motivation and aggression in sport.	Prerequisites: None. EXS281 suggested but not required.		Occ	LEC 3.0 3.0 3.0
SPT265BA	Baseball Theory of Coaching		Reviews the principles, philosophy, strategies and theory of coaching baseball, as a competitive sport.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SPT265BB	Basketball Theory of Coaching		Reviews the principles, philosophy, strategies and theory of coaching basketball, as a competitive sport.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SPT265FB	Football Theory of Coaching		Reviews the principles, philosophy, strategies and theory of coaching football, as a competitive sport.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SPT265GO	Golf Theory of Coaching		Reviews the principles, philosophy, strategies and theory of coaching golf, as a competitive sport.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SPT265SB	Softball Theory of Coaching		Reviews the principles, philosophy, strategies and theory of coaching softball, as a competitive sport.	Prerequisites: None.	SPT265SB may not be repeated for credit.	Occ	LEC 3.0 3.0 3.0
SPT271	Sports Medicine Foundations		Introduction to sports medicine knowledge, techniques, and careers.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Exploration of current trends in athletic injury prevention, management and rehabilitation including wound care, taping, wrapping, bracing, splinting and protective equipment.				
SPT273	Athletic Training: Advanced Wrapping and Taping Techniques		Expands and enhances practical uses of basic taping and wrapping skills. Hands-on experience in the use of braces, athletic taping, and elastic wraps to care for athletic injuries	Prerequisites: A grade of C or better in SPT271 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0
SPT275	Rehabilitation and Therapeutic Interventions in Sports Medicine		Exploration of current trends in the basic and advanced methodologies used in the rehabilitation of athletic injuries. Incorporates demonstrations of injury-appropriate strength and fitness training and therapeutic exercise techniques.	Prerequisites: A grade of C or better in SPT271.		Occ	L+L 3.0 4.0 4.0
SPT281	Methods of Coaching		Comprehensive overview of the art and science of coaching, including development of coaching philosophy, techniques of sport pedagogy, practical application of sports skill teaching, sport physiology, nutrition, sport/team management and self management.	Prerequisites: None. PED265 suggested but not required.		Occ	LEC 3.0 3.0 3.0
SPT281BA	Baseball Methods of Coaching		Overview of the art and science of coaching baseball including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching baseball.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SPT281FB	Football Methods of Coaching		Overview of the art and science of coaching football including: identifying various coaching styles, elements of effective communication, methods	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and techniques of coaching football.				
SPT281GO	Golf Methods of Coaching		Overview of the art and science of coaching golf including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching golf.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SPT281SO	Soccer Methods of Coaching		Overview of the art and science of coaching soccer including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching soccer.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
SSH111	Sustainable Cities		Introduction to the field of sustainability and exploration of the practices leading to the development of sustainable cities. Explores the concept of sustainable development of cities within local, regional, and global contexts.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
SSH298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of independent study and individualized learning to be combined to maximize student development.				
SSH298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
SSH298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
STO100	Introduction to Storytelling		Introduction to the art of storytelling. Finding, crafting and telling traditional, fact-based, and personal stories in and out of class	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
STO100AA	How to Tell Traditional Stories		Introduction to the art of storytelling. Finding, crafting and telling a traditional story in and out of class	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
STO100AB	How to Tell Fact-Based Stories		Introduction to the art of storytelling. Finding,	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			crafting and telling fact-based stories in and out of class				
STO100AC	How to Tell Personal Stories		Introduction to the art of storytelling. Finding, crafting and telling personal stories in and out of class	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
STO101	Storytelling for Literacy		Introduction to the natural process from oral to written language and the role of storytelling in both. Focus will be on the development and sharing of oral and written stories	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
STO145	Digital Storybook	ART145 COM145	Enables students to find and develop a narrative representing an aspect of their personal histories. Use of digital technology to produce and archive a storybook	Prerequisites: None.		Acad	L+L 1.0 2.0 2.0
STO150	Digital Storytelling	ART150 COM150	Enables students to find and develop their personal stories. Emphasis on the use of digital technology to create, edit, produce and archive a digital story	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0
STO200AA	Biographical Storytelling		Exploration of the art and craft of finding, developing and telling biographical stories	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
STO202	Bilingual Storytelling		Introduction to bilingual storytelling as a genre. Research, develop, and craft bilingual stories. Find appropriate contexts and venues for telling. Assist in the integration and application of bilingual storytelling to the learning environment in the classroom.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
STO205	Establishing a Family Storytelling Tradition		Developing a family storytelling tradition. Finding, crafting, telling and preserving the stories of family members past and present, including the traditional stories associated with the family's cultural	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			heritages. Sharing stories in family and community contexts.				
STO250AA	Benefiting from the Storytelling Festival Experience		Observation of master storytellers in performance. Structured observation, inquiry, and reflection in the context of a major national storytelling festival.	Prerequisites: None.	STO250AA may be taken up to 3 times for different festival experiences .	Acad	LEC 1.0 1.0 1.0
STO273	The Biblical Storytelling Tradition		Introduction to the history and practice of biblical storytelling. Overview of the oral foundation of biblical texts and teachings. Utilization of exegesis to develop and adapt stories for modern audiences. Researching, developing, and crafting Bible stories for telling. Telling biblical stories in family, community, and spiritual settings.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
STO279	Creating and Telling Fact-Based Historical Stories	HIS279	Creating and telling fact-based stories and stories from history.	Prerequisites: A grade of C or better in EDU/HUM/S TO292.	HIS/STO279 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0
STO282AA	Service-Learning Experience in Storytelling		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	STO282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0
STO282AB	Service-Learning Experience in Storytelling		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	STO282AB may be repeated for a total of six (6) credit hours. Standard grading available according	Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					to procedures outlined in catalog.		
STO282AC	Service-Learning Experience in Storytelling		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	STO282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
STO283	The African Storytelling Tradition		Introduction to the history and practice of storytelling in Africa. Overview of African myths, legends, folktales, parables, and fables. Great story tellers and story collectors of the past and present. Researching, developing, and crafting African stories for telling	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
STO284	Storytelling and Music		Introduction to the role and importance of music in storytelling. Research, craft, and tell stories that include percussion, vocal, or instrumental elements.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
STO285	Creating/Performing Solo/Collaborative Works	THP285	Developing, rehearsing, and performing solo and collaborative works for fringe festivals and other storytelling and theatre venues.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
STO286	Using Storytelling in a Variety of Settings		The application of storytelling and storytelling activities in the world of health care, business, parks, museums, hospitals, and education	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
STO287	Norse and Scandinavian Storytelling Tradition		Overview of Norse and Scandinavian myths, legends, folktales. Impact of Norse and Scandinavian myth on popular culture.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Researching, developing, and crafting Norse and Scandinavian stories for telling, game development, structuring graphic novels and other applications.				
STO288	Telling Sacred Stories from Around the World		Introduction to sacred stories as a genre. Researching, developing, and crafting traditional and personal sacred stories. Finding appropriate applications and venues for telling.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Acad	LEC 3.0 3.0 3.0
STO289AA	Using Storytelling in Educational Settings		The application of storytelling and storytelling activities in educational settings.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
STO289AB	Using Storytelling in Business Settings		The application of storytelling and storytelling activities in business settings	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
STO289AC	Using Storytelling in Healing Settings		The application of storytelling and storytelling activities in healing settings	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
STO289AD	Using Storytelling in Interpretive Settings		The application of storytelling and storytelling activities in interpretive settings including museums, gardens, parks, and zoos	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
STO289AE	Using Storytelling in Toastmasters		The application of storytelling and storytelling activities in speaking and leadership groups such as Toastmasters.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
STO289AF	Using Storytelling in Family Settings		The application of storytelling and storytelling activities in family settings, such as family story nights, holidays, and reunions. Emphasis on finding and sharing family stories.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
STO289AG	Using Storytelling in Advocacy Settings		The application of storytelling and storytelling activities in contexts of advocacy and civic engagement. Focus on stories that reflect the goals and	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			aims of a civic organization.				
STO290	The Irish Storytelling Tradition		Introduction to the history and practice of storytelling in Ireland. Overview of Irish myths, legends, folktales, and humorous tales. Great story tellers and story collectors of the past and present. Researching, developing, and crafting Irish stories for telling	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Acad	LEC 3.0 3.0 3.0
STO291AA	Storytelling Circle		Designed to provide opportunities for students to practice and develop critical listening and storytelling skills.	Prerequisites: A grade of C or better in EDU/HUM/S TO292 or permission of Instructor.	STO291AA may be repeated for a total of three (3) credits.	Acad	L+L 1.0 1.5 1.5
STO292	The Art of Storytelling	EDU292 HUM292	Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
STO293	The Art of Storytelling II		Further exploration of the art of storytelling. Provide opportunities for the expansion of storytelling skills and a deeper appreciation of storytelling and its applications	Prerequisites: A grade of C or better in EDU292 or HUM292 or STO292.		Acad	LEC 3.0 3.0 3.0
STO294	Multicultural Folktales	EDU294 ENH294	Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications	Prerequisites: None.	General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
STO295	Traditional Storytelling Around the World		Introduction to traditional storytelling practices around the world.	Prerequisites: None.	Course Attribute(s): General	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Understanding the roles and techniques of traditional storytellers. Telling traditional stories ethically.		Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Global Awareness - [G]		
STO297	Creating and Telling Personal Stories		Exploration of the art and craft of finding, developing and telling personal stories.	Prerequisites: A grade of C or better in EDU292 or HUM292 or STO292.		Acad	LEC 3.0 3.0 3.0
STO298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to m COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
STO298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to m COMMON COMPETENCY COURSE				
STO298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to m COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
SUN101	Basic Math for Carpenters		Mathematical concepts and operations for the carpentry trade. Addition, subtraction, multiplication and division of whole, decimal, fractional and metric numbers. Linear, angular, circular, surface and volume measurements. Basic geometry	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
SUN104	Site Preparation I		Trade terms, local zoning and building ordinances, and plot plan layout. Installation of batter boards and establishing building lines. Set up and use of a builder's level.	Prerequisites: (Registered apprentice status and a grade of C or better in SUN101) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
SUN105	Reading Plans and Elevations		Construction drawings, lines, symbols, dimensions and abbreviations. Specifications and site and plot plan development. Includes plan and elevation reading exercises.	Prerequisites: (Registered apprentice status and a grade of C or better in ABC123) or permission of the		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				Apprenticeship Coordinator.			
SUN108	Wall Systems, Tilt-Up		History and evolution of tilt-up construction processes. Tilt- up versus concrete block or poured in place concrete walls. Testing of concrete and preparation of the slab for tilt-up. Grading and finishing concrete slabs and forming tilt-up panels. Lifting and bracing panels.	Prerequisites: (Registered apprentice status and a grade of C or better in SUN103) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5
SUN109	Site Preparation II		Basic field engineering including terminology, methods of land description and the use of tools and instruments. Government land survey system procedures and specific procedures for field surveying.	Prerequisites: Registered apprentice status and a grade of C or better in SUN101 and SUN104 or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
SUN110	Forming		Concrete formwork including terminology, layout, materials and tolerances. Construction forms for columns, footings, walls, beams and stairs.	Prerequisites: (Registered apprentice status and a grade of C or better in SUN101) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5
SUN110AA	Forming (Loose) Fundamentals		Cushion cone and cam-lock forming system. Various form and scaffold bracket systems. Forming teams, snap ties, aluma gang forms. Lumber versus Laminated Veneer Lumber (LVL) strongbacks.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
SUN111	Introduction to Light Equipment		Use, operation and maintenance of light equipment used in the construction trades. Types, assemblies,	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			operator qualifications, controls, safety precautions, operating procedures, and maintenance of aerial lifts, skid steer loaders, trenchers, generators, compressors, compactors and forklifts				
SUN112	Framing Fundamentals		Wall and ceiling layout procedures. Assembly and erection of exterior walls using common materials and methods. Masonry construction wall framing techniques and use of metal studs.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0
SUN201	Reinforcing Concrete		Use of reinforced concrete and reinforcing steel. Reinforced concrete in specific settings. Reinforcing steel; bar supports, bar lists, fabrication options, cutting and bending, tying, splicing and placing bars	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5
SUN202	Horizontal and Vertical Formwork		Concrete forming and shoring systems and accessories, panel and gang wall patented wall forming systems. Column patented forms, flying form systems and culvert and roof support systems. Slipforming, paving and architectural forms. Application and construction methods for various types of forming and form hardware systems for walls, columns, and stairs as well as slip forms, climbing forms, and shaft forms. Overview of assembly, erection and stripping of gang forms.	Prerequisites: (Registered apprentice status and a grade of C or better in SUN201) or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
SUN207	Metal Studs and Drywall		Installation of metal framing members and gypsum dry wall. Gypsum ceiling products and installation procedures	Prerequisites: Registered apprentice status or permission of the Apprenticeship		Occ	LEC 1.5 1.5 1.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				p Coordinator.			
SUN208	Construction Plans and Elevations		Construction drawings, plans and elevations. Lines, symbols, dimensions and abbreviations. Specifications and site and plot plan development. Includes plan and elevation reading exercises.	Prerequisites: (Registered apprentice status and a grade of C or better in SUN105) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5
SUN298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
SUN298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
SUN298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
SUS100	Introduction to Sustainability		Introduction to the basic concepts of sustainability. Includes challenges of land, ocean, and resource management as well as the built environment. Also covers connections between global, local and personal sustainability challenges and responses at each level.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G]	Acad	LEC 3.0 3.0 3.0
SUS110	Sustainable World		Introduction to the field of sustainability and exploration of the interaction between human and natural global systems. Framework for analyzing and investigating the global challenges such as land use change, competition for water and other natural resources, and renewable energy concerns and crises.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
SUS230	Practical Skills for Sustainability Problem Solving		Introduction to professional skills in sustainability problem solving. Emphasis on four skill areas: teamwork basics, project management tools and	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			professional behaviors, self-directed learning techniques, and stakeholder engagement. Also covers techniques for identification of challenges and conflict resolution within a sustainability project.				
SUS231	Careers in Sustainability		Introduction to career pathways in sustainability. Exploration of career paths, development of interview skills, and resume creation covered in addition to articulation of personal interests and values related to careers in sustainability. Also includes an introduction to networking skills and job search assistance.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
SUS232	Professional Skills in Sustainability Practice		Introduction to professional skills in sustainability through interpersonal competence. Emphasis on teamwork, project management, stakeholder engagement, communication, and continuous learning.	Prerequisites: A grade of C or better in SUS110 and SSH111 and (ENG101 or ENG107).		Acad	LEC 3.0 3.0 3.0
SWU101AA	Self-Awareness for Paraprofessional Helpers		Explores the paraprofessional helper's feelings and values, and encourages examination of one's own strengths, weaknesses and coping skills within the context of the helping relationship.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
SWU101AB	Awareness of Others for Paraprofessional Helpers		Applies the paraprofessional helper's insights about themselves within the context of knowledge about client populations, diversity, ethics, and beginning stages of assessment.	Prerequisites: A grade of C or better in SWU101AA.		Acad	LEC 1.0 1.0 1.0
SWU101AC	Intervention Assessment for		Introduction for the paraprofessional helper to intervention	Prerequisites: A grade of C		Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	Paraprofessional Helpers		techniques, beginning communication skills, community resources, and development of action plans.	or better in SWU101AB.			
SWU130	Addictions and Substance Use Disorders		Sociological, psychological and physiological aspects of addictive behaviors and chemical abuse. Consideration of a variety of treatment programs offered in community agencies.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SWU171	Introduction to Social Work		Analysis of contemporary social welfare services and professional social work.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SWU181	Economics: A Social Issues Perspective		Introduction to economic principles through the lens of contemporary social issues for social work and related fields.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SWU182	A Social Services Perspective of Government		Government and the role of policy practice in advancing social and economic justice and effective social services within the southwest.	Prerequisites: None.	Course Attribute(s): General Education Designation : Social-Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
SWU183	Introductory Ethics: A Social Service Perspective		Introductory exploration of ethics from a historical and multicultural perspective viewed through the lens of contemporary social issues.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
SWU225	Statistics for Social Research/Justice and Government		Introductory course in descriptive and inferential statistics for social research. Designed to serve as preparation for interpreting and understanding research related to Justice and Government related agencies.	Prerequisites: A grade of C or better in MAT092 or completion of higher level mathematics course.	Course Attribute(s): General Education Designation : Computer/S tatistics/Qu antitative Applications - [CS]	Acad	LEC 3.0 3.0 3.0
SWU250	Mindfulness for Stress Management		Introduction to the theory, research and practice behind	Prerequisites: None.	Course Attribute(s): General	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			mindfulness and stress management as it relates to quality of life issues and professional self-care. Focus on maintaining a healthy lifestyle and managing personal/professional stress by incorporating evidence based research on nutrition, mindfulness, communication, positive psychology, exercise, environmental factors contributing to wellness and disease; immune system support, activity management and developing practices that facilitate maintaining living in balance.		Education Designation : Social-Behavioral Sciences - [SB]		
SWU258	Victimology and Crisis, a Social Services Perspective		A social work response to victimology, working with the criminal justice system, evidence-based techniques in crisis intervention, and the importance of a multicultural and global perspective. Includes a therapeutic approach to topics such as sexual assault, family violence, post-traumatic stress disorder, stress management, natural disasters, effective coping skills, appropriate community resources, and the responsiveness of the justice system.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
SWU275AA	Case Report Writing I		Documentation skills for human service helpers. Includes privacy and legal issues.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
SWU282AA	Volunteerism for Social Work: A ServiceLearning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	SWU282AA may be repeated for a total of six (6) credit hours; may not repeat specific assignment for more	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					than three (3) credit hours. Standard grading available according to procedures outlined in catalog.		
SWU282AB	Volunteerism for Social Work: A ServiceLearning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	SWU282AB may be repeated for a total of six (6) credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
SWU282AC	Volunteerism for Social Work: A ServiceLearning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	SWU282AC may be repeated for a total of six (6) credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
SWU285	Social Services Seminar		Special topics in social services with an emphasis on current	Prerequisites: None.	SWU285 may be repeated for	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			issues not covered in other Social Work courses.		a total of four 4 credit hours.		
SWU291	Social Service Delivery Systems		Purposes, structures, and delivery systems of human service agencies. Includes 40 hours of volunteer experience in local human service agencies.	Prerequisites: A grade of C or better in SWU171, or permission of Department or Division or Corequisites: SWU171.		Acad	LEC 3.0 3.0 3.0
SWU295	Effective Helping in a Diverse World		Introduction to professional helper communication skills with respect to cross-cultural practice and diversity issues, in a social work setting.	Prerequisties: None. SWU171 suggested but not required.	Course Attribute(s): General Education Designation : Cultural Diversity [C] General Education Designation : Social-Behavioral Sciences [SB]	Acad	LEC 3.0 3.0 3.0
SWU296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				interest or with permission of the Instructor.			
SWU296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0
SWU296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job		Acad	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
SWU296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0
SWU298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.				
SWU298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
SWU298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
TDR102	Construction Soft Skills I: Workplace Skills		First impressions, relationship building, and team work. Diversity in the work place.	Prerequisites: Registered apprentice status or permission of		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Individual and group activities.	Apprenticeship Coordinator.			
TDR104	Construction Soft Skills II: Listening and Speaking		Effective listening, speaking, reading and writing skills for the construction industry. Communication process: channel, receiver and feedback. Communication issues, problems, and noise. Business and form writing for the construction industry. On-the-job site factors. Individual and group activities	Prerequisites: A grade of C or better in TDR102.		Occ	LEC 1.0 1.0 1.0
TDR106	Construction Soft Skills III: Resolving Workplace Issues		Stress recognition and management. Time management. Critical thinking and problem solving. Conflict prevention and resolution. Annoying behavior. Coping skills. Criticism. Sexual harassment. drug, alcohol, and substance abuse. Individual and group activities	Prerequisites: A grade of C or better in TDR104.		Occ	LEC 1.0 1.0 1.0
TDR122	Basic Electrical Theory		Introduction to electrical theory, direct current (DC) circuits, series, parallel, and series-parallel circuits, DC power sources, DC motors, DC generators	Prerequisites: Permission of Instructor.		Occ	LEC 5.0 5.0 5.0
TDR296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job		Occ	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
TDR296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0
TDR296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and	Prerequisites: Completion of at least twelve (12)		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
TDR296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to students major or career interest or with permission of Instructor.			
TDR298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
TDR298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
TDR298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
TEC103	Developing Your Fashion Business		Creating and understanding a financial plan, developing operating and control systems, planning growth strategies and a business plan for the Fashion Entrepreneur. Emphasis on fashion merchandise and successful fashion business development	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
TEC105	Cultural Aspects of Clothing		Psychological, aesthetic, and economic factors applied to the systematic study of dress and adornment in relationship to world cultures and the global fashion industry.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Social-Behavioral Sciences [SB]	Occ	LEC 3.0 3.0 3.0
TEC106	History of Fashion		Consideration of historic factors influencing fashion and fashion change with special emphasis on historic costume.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
TEC108	Flat-Pattern Design		Beginning flat-pattern design techniques. Introductory work with pattern accuracy, markings, style	Prerequisites: A grade of C or better in TEC110 or	TEC108 may be repeated for a total of six	Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			variations, seams, and garment features to create basic designs.	permission of Instructor.	(6) credit hours.		
TEC109	Introduction to Fashion Merchandising	MKT109	Explores the various levels and specialized segment of the fashion industry, the principles of fashion, the fundamentals of merchandising apparel, consumers' influence on demand and marketing activities.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
TEC110	Beginning Apparel Construction		Basic apparel construction techniques. Use of commercial patterns and sewing machine in the construction of basic garments.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0
TEC111	Intermediate Apparel Construction		Intermediate clothing construction techniques. Emphasis on fit and construction details of commercial patterns.	Prerequisites: A grade of C or better in TEC110 or permission of Instructor.	TEC111 may be repeated for a total of twelve (12) credit hours with Permission of Instructor. If student has no previous sewing experience, TEC110 should be taken prior to and not during this course.	Occ	L+L 3.0 5.0 5.0
TEC112AQ	Pattern Alteration and Fit		Structural features of patterns and altering patterns to achieve proper fit. Includes figure irregularities, pattern style variations, fashion, and individual figure problems.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.	TEC112AQ may be repeated for a total of six (6) credit hours with Instructor permission.	Occ	L+L 2.0 3.0 3.0
TEC112AU	Sewing Clothing Accessories		Construction of clothing accessories for personal or professional use. Includes overview of accessories, principles of design, selection of fabrics and trims, use of commercial patterns,	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.	TEC112AU may be repeated for a total of twelve (12) credit hours.	Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			creation of custom patterns, construction techniques, and evaluation of accessories.				
TEC113	Textiles: Dyeing		Demonstrations and projects emphasizing skills and techniques in creating textile designs on fabric for fashion and interior design applications. Fabric dyeing techniques through hands-on practices such as tie dyeing, shibori dyeing and batik dyeing.	Prerequisites: None.	TEC113 may be repeated for a total of three (3) credits.	Occ	L+L 1.0 1.5 1.5
TEC114	Textiles: Block Printing/Silk Screening		Block printing and silk screening techniques used to create designs on fabric for apparel and interiors.	Prerequisites: None.	TEC114 may be repeated for a total of three (3) credits.	Occ	L+L 1.0 2.0 2.0
TEC115	Textiles: Hand Painting		Techniques used to hand paint designs on textiles for fashion and interior design. Techniques include water color and ombre, marbleizing, stenciling, stamping and various resist methods such as gutta and taping. Includes color theory and design development.	Prerequisites: None.	TEC115 may be repeated for a total of three (3) credits.	Occ	L+L 1.0 1.5 1.5
TEC116	Textiles: Stitchery and Embellishment		Materials and techniques used for stitchery and embellishment on textiles. Includes color schemes and design development.	Prerequisites: None.	TEC116 may be repeated for a total of three (3) credits.	Occ	L+L 1.0 1.5 1.5
TEC120	Specialty Apparel Construction		Application of specialty fabrics in clothing construction. Emphasis on improved construction quality and garment fit.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.	TEC120 may be repeated for a total of nine (9) credit hours with permission of Instructor.	Occ	L+L 3.0 5.0 5.0
TEC121	Creative Sewing Machine Use		Use of the sewing machine for other than construction of garments or household items.	Prerequisites: A grade of C or higher in TEC110 or		Occ	L+L 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Emphasis on decorative uses of the sewing machine on items made or purchased by the user.	permission of Instructor.			
TEC122	Sewing with Knits		Skills and techniques used in the construction of garments made from knit fabrics.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
TEC124	Advanced Apparel Construction		Advanced garment construction techniques. Emphasis on lined jacket construction and working with patterned and specialty fabrics.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.	TEC124 may be repeated for a total of twelve (12) credit hours with permission of Instructor.	Occ	L+L 3.0 5.0 5.0
TEC125	Fashion Design		Overview of the fashion design industry. Includes terminology, fashion trends, elements and principles of design, sources of inspiration, fabric selection, sketching and costing a collection, an introduction to pattern making techniques, and global fashion centers' design and manufacturing specialties.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Occ	LEC 3.0 3.0 3.0
TEC126	Sewing for the Home	INT126	Provides students systemic skills and knowledge to plan and construct draperies, shades, pillows, bedding and other home furnishings through instructional projects. Emphasizes techniques used in producing textile goods for the home.	Prerequisites: None.	Basic sewing skills are recommended. INT/TEC126 may be repeated for a total of nine (9) credit hours.	Occ	LEC 3.0 3.0 3.0
TEC128	Home Upholstery		Demonstration and application of knowledge and skills involved in upholstering stools, chairs, headboards, and other home furnishings. Includes measuring and	Prerequisites: None.	TEC128 may be repeated for credit.	Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			cutting upholstery fabric and sewing outdoor/indoor cushions.				
TEC129	Sewing with a Serger		Operation of a home serger. Use in constructing, finishing, and decorating garments and home decorations. Home serger required.	Prerequisites: A grade of C or better in TEC110 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
TEC130	Alteration of Ready Made Garments		Knowledge, skills, and techniques of altering ready-made garments for personal or professional use. Experience using a sewing machine and constructing garments assumed.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
TEC133	Fashion Illustration: Croquis		Techniques for working with female and male croquis. Applications for illustrating clothing on croquis and preparing a fashion layout.	Prerequisites: None.	TEC133 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 4.0 4.0
TEC134	Fashion Illustration I		Proportions and techniques used in drawing fashion figures and clothing. Introduction of media and illustrative styles for portfolio design, trade sketches, and fashion advertisements.	Prerequisites: None.	TEC134 may be repeated for a total of nine (9) credits.	Occ	L+L 3.0 5.0 5.0
TEC135	Fashion Illustration II		Intermediate-level study of proportion and techniques used in drawing fashion figures, clothing, and flats. Continued study of garments, fabric textures and patterns. Development of skills in presentation drawing and commencing fashion design portfolio illustrations.	Prerequisites: A grade of C or better in TEC134 or permission of Instructor.	TEC135 may be repeated for a total of nine (9) credits.	Occ	L+L 3.0 5.0 5.0
TEC136	Fashion Illustration III		Advanced-level study of proportions and techniques used in drawing fashion figures, clothing, and flats. Continued study of illustrative styles for garments, fabric textures and patterns. Further	Prerequisites: A grade of C or better in TEC135 or permission of Instructor.	TEC136 may be repeated for a total of nine (9) credits.	Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development of skills in portfolio presentation.				
TEC138	Fashion Illustration: Menswear		Study of proportions and techniques used in drawing menswear fashion figures, clothing, accessories, and flats. Focus on the male physique and specific fitting variations of clothing. Introduction of traditional menswear fabrications and poses for tailored clothing and sportswear.	Prerequisites: A grade of C or better in TEC134 or permission of Instructor.	TEC138 may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 5.0 5.0
TEC139	Fashion Illustration: Children's Wear		Study of proportions and techniques used in drawing children's wear fashion figures, clothing, and flats from infants through teenagers. Introduction of body and feature characteristics unique to the various ages of growth for children. Includes emphasis on common clothing styles, fabrics, effects, and details.	Prerequisites: A grade of C or better in TEC134 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
TEC141	Fashion Design: CAD		Use of computer-assisted design (CAD) in the fashion design industry. Create and illustrate fashion designs using these applications. Color and design principles applied in creating an apparel line and developing a portfolio	Prerequisites: None.	TEC141 may be repeated for a total of six (6) credits.	Occ	L+L 2.0 2.0 2.0
TEC143	Industrial Sewing I		Introduction to industrial sewing machine usage with emphasis on techniques, applications, and stitching control. Basic methods used in constructing, finishing, and decorating apparel.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.	TEC143 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0
TEC144	Industrial Sewing II		Use of standard industrial sewing machines with emphasis on techniques, applications, speed, and stitching control. Expanded methods in intermediate and	Prerequisites: A grade of C or better in TEC143 or permission of Instructor.	TEC144 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			advanced construction, finishing, and decorating apparel.				
TEC146	Manufacturing Sewing Methods I		Introduction to skills and techniques of sewing for apparel manufacturing ready-made-garments. Focus on applying correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials.	Prerequisites: A grade of C or better in TEC144 or permission of Instructor.	TEC146 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0
TEC147	Manufacturing Sewing Methods II		Advanced skills and techniques of sewing for apparel manufacturing ready-made-garments. Advanced application of correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials.	Prerequisites: A grade of C or better in TEC146 or permission of Instructor.	TEC147 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0
TEC150	Fashion Show Production		Students will learn and experience real-time production techniques and skills of a fashion show. Includes but not limited to, budget planning, project management, marketing, staffing, décor, staging, and production.	Prerequisites: None.	TEC150 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 4.0 4.0
TEC151	Display and Visual Merchandising	MKT151	An examination of the principles of design including line, color, balance, and texture as they relate to the display of merchandise. Participation in displays, field trips, and individual projects	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
TEC161	Digital Machine Embroidery Laboratory		Use of the sewing machine and computer for development of decorative designs for garment and fabric design	Prerequisites: None.	TEC161 may be repeated for a total of six (6) credits.	Occ	LAB 1.0 2.0 2.0
TEC162	Product Development Laboratory		Focus on current trends in fashion product development; methods and techniques to	Prerequisites: A grade of C or better in TEC125 or	TEC162 may be repeated for	Occ	LAB 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			translate design ideas into a realistic production product	permission of Instructor.	a total of six (6) credits.		
TEC200	Retail Buying	MKT200	Examines management/buyer role in investment, pricing, planning, controlling sales and inventories Any BPC/CIS spreadsheet course recommended	Prerequisites: None. A grade of C or better in any BPC/CIS spreadsheet course recommende d.		Occ	LEC 3.0 3.0 3.0
TEC221	Computer-Assisted Fashion Design		The use of computer hardware and software in the fashion design industry. Create and illustrate fashion designs using computer hardware and software. Color and design principles applied in creating an apparel line and developing a portfolio.	Prerequisites: A grade of C or better in (TEC125 and TEC134) or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
TEC222	Textiles		Study of textile fibers, yarns, fabrication, color and finishes and their impact on product performance. Includes labeling laws, fiber manufacturing processes, technical textiles, fiber properties, care, end use, and global sustainability efforts.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
TEC223	Tailoring		Principles of tailoring as applied in the construction of a coat or suit. Alteration of patterns and fitting techniques.	Prerequisites: A grade of C or better in TEC124 or permission of Instructor.	TEC223 may be repeated for a total of twelve (12) credit hours with permission of instructor.	Occ	L+L 3.0 6.0 6.0
TEC224	Pattern Drafting		Draft patterns from measurements of dress forms and human figures. Development of slopers and garment patterns. Design and produce an original garment using pattern drafting techniques.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.	TEC224 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
TEC225	Pattern Design I		Creation of pattern designs by flat pattern methods. Produce a variety of styles. Production of an original pattern design and garment.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.	TEC225 may be repeated for a total of twelve (12) credits.	Occ	L+L 3.0 5.0 5.0
TEC226	Draping for Fashion Design		Manipulation of fabrics on a dress form and/or live figure to create designs and patterns. Use of woven fabrics to create basic and intermediate designs. Introduction of knitwear draping. Drape and construct an original design.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.	TEC226 may be repeated for a total of nine (9) credits.	Occ	L+L 3.0 5.0 5.0
TEC227	Couture Sewing		Construction techniques used in couture sewing. Includes fabric selection, fabric preparation, hand sewing, garment shaping, edge finishes, embellishments, and closures. Emphasis on fitting and couture construction techniques used to construct skirts, pants, blouses, dresses, sleeves, pockets, jackets, coats, and evening wear.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.	TEC227 may be repeated for a total of twelve (12) credit hours with permission of Instructor.	Occ	L+L 3.0 5.0 5.0
TEC228	Advanced Draping for Fashion Design		Advanced draping techniques for fashion design. Includes draping jackets/coats, shorts/pants, dresses/gowns and other woven fabrics. Also includes draping swimwear/leotards and other garments in knit fabrics. Drape and construct an original design.	Prerequisites: A grade of C or better in TEC226 or permission of Instructor.	TEC228 may be repeated for a total of nine (9) credits.	Occ	L+L 3.0 5.0 5.0
TEC229	Advanced Serging		Operation of a home serger in advanced application of construction and embellishment for garments and home decoration projects. Home serger required.	Prerequisites: A grade of C or better in TEC129 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
TEC230	Pattern Design II		Practical application in designing	Prerequisites: A grade of C	TEC230 may be	Occ	L+L 3.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			clothing/patterns using flat pattern method. Principles of flat pattern and use of sloper reviewed. Includes creation of woven and knit original designs.	or better in TEC225 or permission of Instructor.	repeated for a total of twelve (12) credits.		
TEC231	Pattern Grading		Grading patterns to change sizes. Includes grading terminology, grading methods, figure types, grading charts, types of grade, even and uneven grades, and grading basic and intermediate designs.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.	TEC231 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 5.0 5.0
TEC232	Costume Construction		Costume construction techniques applied to period reproduction, vintage, fantasy and anime; stage and dance costumes. Includes alteration of commercial patterns, drafting of original patterns, and fitting techniques.	Prerequisites: A grade of C or better in TEC111 and (TEC224 or TEC225 or TEC226 or permission of Instructor).	TEC232 may be repeated for a total of twelve (12) credit hours with permission of Instructor.	Occ	L+L 3.0 5.0 5.0
TEC233	Computer-Assisted Pattern Making		Pattern making using the computer and various software programs. Includes measuring, block patterns, pattern development, production patterns, modifications for size and fit, and markers	Prerequisites: A grade of C or better in TEC225 or permission of Instructor.	TEC233 may be repeated for a total of twelve (12) credit hours with permission of Instructor.	Occ	L+L 3.0 5.0 5.0
TEC234	Vintage Fashion Design		Research of 20th-century fashions from the 1920s through the 1990s influencing vintage garment styles. Analysis of vintage era and revival trends. Development and construction of an original vintage garment/ensemble including design, fabric selection, and commercial pattern use with flat-patternmaking and/or draping variations.	Prerequisites: A grade of C or better in (TEC225 or TEC226) or permission of Instructor.	TEC234 may be repeated for a total of twelve (12) credit hours.	Occ	L+L 3.0 5.0 5.0
TEC235	Custom Tailored Pants		Designed for the home sewing enthusiast or dressmaker who desires	Prerequisites: A grade of C or better in		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			a perfectly fitted pant pattern. Pattern adjustments; selecting proper size; fitting procedures for a personalized pant. Fabric draft of the basic pant to be fitted on each student	TEC111 or equivalent.			
TEC236	Portfolio Development		This course is designed to assist students in the preparation and presentation of an original professional portfolio. Students will design, produce, and present artistic sketches and illustrations of fashion figures wearing designs, flats for garment designs, and fabric swatches/samples selected for designs. Including but not limited to using computer-assisted design software, presentation boards, and other required components in the field of portfolio development.	Prerequisites: A grade of C or better in TEC134 and permission of Department or Division. TEC221 is recommended.	TEC236 may be repeated for a total of three (3) credits.	Occ	LAB 1.0 3.0 0.0
TEC237	Intermediate Computer-Assisted Fashion Design		Intermediate-level study in the use of computer hardware and software in the fashion design industry. Draw fashion figures, create textile designs, develop and illustrate an original portfolio collection.	Prerequisites: A grade of C or better in (TEC134 and TEC221) or permission of Instructor.		Occ	L+L 3.0 5.0 5.0
TEC238	Industry Patternmaking Standards		Study of patternmaking techniques for industry. Specifications for production patterns, labeling methods, and direction cards.	Prerequisites: A grade of C or better in TEC225 or permission of Instructor.	TEC238 may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 2.0 2.0
TEC240	Apparel Production Management		Overview of apparel production management for the global marketplace examining component details of the technical package, tech-pack, which include specifications and	Prerequisites: None.	TEC240 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			costing in the most time-efficient manner.				
TEC241	Advanced Computer-Assisted Fashion Design		Advanced techniques and use of computer hardware and software in the fashion design industry. Create and illustrate fashion designs using multiple computer applications. Create advanced textile surface pattern design using color and design principles on the computer. Manipulate CAD pattern design for original patterns, grading, and markers. Create storyboards for product development and personal portfolio.	Prerequisites: A grade of C or better in TEC124 and TEC237.		Occ	L+L 3.0 5.0 5.0
TEC244	Industrial Sewing III		Mastery study of industrial sewing machine usage for straight-stitch, zigzag, over-lock, cover stitch and blind-hem machines. Use in detailed or complex constructing, finishing, and decorating apparel and home decor.	Prerequisites: A grade of C or better in TEC144 or permission of Instructor.	TEC244 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0
TEC245	Wardrobe Strategies		Methods of clothing selection, coordination, evaluation, and planning to meet men's and women's wardrobe needs.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
TEC247	Manufacturing Sewing Methods III		Mastery knowledge, skills, and techniques of sewing for apparel manufacturing ready-made-garments. Mastery level application of correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials.	Prerequisites: A grade of C or better in TEC147 or permission of Instructor.	TEC247 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0
TEC250	Apparel Quality Analysis		Quality analysis of construction components that affect the appearance, function,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and cost of ready-to-wear apparel				
TEC255	Fashion Retail Merchandising		Surveys the structure and operation of fashion retail organizations. Emphasizes the global nature of fashion merchandising and techniques of merchandising for the fashion merchandising major.	Prerequisites: A grade of C or better in MKT/TEC109		Occ	LEC 3.0 3.0 3.0
TEC260	Fashion Sales Management		Emphasizes the fashion aspects of sales, and the application and management of a sales force for the fashion industry.	Prerequisites: A grade of C or better in MKT/TEC109		Occ	LEC 3.0 3.0 3.0
TEC270	Design Studio		Design and production of original garments for a line/collection. Includes design inspirations, sketches/illustrations, fabric/materials selection, pattern development, construction and fit.	Prerequisites: A grade of C or better in (TEC225 or TEC226) or permission of Instructor.	TEC270 may be repeated for a total of twelve (12) credit hours.	Occ	LAB 3.0 4.0 4.0
TEC271AA	Fashion Design Internship		Work experience in fashion design business or industry. Work hours are coordinated for a minimum of 80 hours per semester. Supervision and evaluation by internship coordinator.	Prerequisites: Permission of Department or Division.	TEC271AA may be repeated for a total of three (3) credit hours.	Occ	LAB 1.0 5.0 0.0
TEC271AC	Fashion Design Internship		Work experience in fashion design business or industry. Fifteen hours of work weekly. Supervision and evaluation by an internship coordinator	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 15.0 0.0
TEC272AA	Retail Merchandising Internship		Retail Merchandising work experience in a Fashion Retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				academic or career goals (student's present job may qualify); or permission of Instructor.			
TEC272AC	Retail Merchandising Internship		Retail Merchandising work experience in a Fashion Retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.		Occ	LAB 3.0 3.0 0.0
TEC274AA	Fashion Merchandising Study Tour		A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career	Prerequisites: Permission of Department or Division.		Occ	LAB 1.0 5.0 1.0
TEC274AB	Fashion Merchandising Study tour		A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career.	Prerequisites: Permission of Department or Division.		Occ	LAB 2.0 10.0 2.0
TEC274AC	Fashion Merchandising Study Tour	MKT274A C	A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 15.0 3.0
TEC275AA	Image Consultant Internship		Image Consultant work experience in a Fashion Retail business or industry. Supervision	Prerequisites: Completion of at least twelve (12)		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.			
TEC275AC	Image Consultant Internship		Image Consultant work experience in a Fashion Retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.		Occ	LAB 3.0 3.0 0.0
TEC277AA	Alteration Internship		Alteration work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				may qualify); or permission of Instructor.			
TEC277AC	Alteration Internship		Alteration work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.		Occ	LAB 3.0 3.0 0.0
TEC278AA	Costume Design and Production Internship		Costume Design and Production work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of Instructor		Occ	LAB 1.0 1.0 0.0
TEC278AC	Costume Design and Production Internship		Costume Design and Production work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.			
TEC282AA	Service-Learning in Fashion Merchandising and Design		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	TEC282AA may be repeated for a total of six (6) TEC282AA credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0
TEC282AB	Service-Learning Experience in Fashion Merchandising and Design		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	TEC282AB may be repeated for a total of six (6) TEC282AB credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0
TEC282AC	Service-Learning Experience in Fashion Merchandising and Design		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	TEC282AC may be repeated for a total of six (6) TEC282AC credit hours. Standard grading available according to procedures	Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					outlined in catalog.		
TEC296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
TEC296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
TEC296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
TEC296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
TEC298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
TEC298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
TEC298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
THE111	Introduction to Theatre		A survey of theatre, including basic elements and principles of production, styles, and/or historical perspectives of theatre, dramatic literature, and criticism	Prerequisites: None.	General Education Designation : Humanities, Arts and Design - [HU] Arizona Shared Unique Number SUN# THE1100	Acad	LEC 3.0 3.0 3.0
THE220	Modern Drama		Analysis of dramatic literature studied within political, historical, and cultural contexts and examined from the	Prerequisites: A grade of C or better in ENG101 or	Course Attribute(s): General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			perspective of the playwright's structure and style.	ENG107 or equivalent.	: Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L] Arizona Shared Unique Number SUN#: THE 2220		
THE260	Film Analysis		Understanding and enjoyment of film and its correlation to literature, art, music, and other disciplines	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
THE274AA	Theatre Study Tour		A tour that focuses on theatre production outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about theatre production	Prerequisites: Permission of Department or Division.		Acad	LAB 1.0 5.0 1.0
THE274AB	Theatre Study Tour		A tour that focuses on theatre production outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about theatre production	Prerequisites: Permission of Department or Division.		Acad	LAB 2.0 10.0 2.0
THE274AC	Theatre Study Tour		A tour that focuses on theatre production outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about theatre production	Prerequisites: Permission of Department or Division.		Acad	LAB 3.0 15.0 3.0
THE282AA	Service-Learning Experience in Theatre		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	THE282AA may be repeated for a total of six (6) credit hours. Standard	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross References	Description	Requisite	Course Note	Subject Type	Credits Periods Load
					grading available according to procedures outlined in catalog.		
THE282AB	Service-Learning Experience in Theatre		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	THE282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
THE282AC	Service-Learning Experience in Theatre		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	THE282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
THE298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
THE298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
THE298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
THF115	Makeup for Stage and Screen		Purposes, materials, and techniques of makeup for stage and screen.	Prerequisites: None.		Acad	L+L 3.0 4.0 4.0
THF120AA	Audition Techniques for Stage and Screen: Prepared Monologue		Practice in the techniques of auditioning for stage and screen. Identifies and illustrates techniques of the prepared monologue audition.	Prerequisites: None.		Acad	L+L 1.0 2.0 2.0
THF120AB	Audition Techniques for Stage and Screen: Cold Readings		Practice in the techniques of auditioning for stage and screen. Identifies and illustrates	Prerequisites: None.		Acad	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			techniques of the cold reading audition.				
THF130	Combat for Stage and Screen		Fundamental techniques and terminology of staged combat with and without weapons. Analysis and performance of safely choreographed violence that tells a story for stage and screen.	Prerequisites: None.	THF130 may be repeated for a total of twelve (12) credit hours.	Acad	L+L 3.0 4.0 4.0
THF205	Introduction to Cinema	HUM205	Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
THF206	Introduction to Television Arts	HUM206	History and development of electronic media and its impact on popular arts.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
THF209	Acting for the Camera		Special technical aspects of acting before a camera.	Prerequisites: A grade of C or better in THP112 or permission of Instructor.		Acad	L+L 3.0 4.0 4.0
THF210	Contemporary Cinema	HUM210	A study of contemporary films, directors and critics with emphasis on evaluating film as an art form.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
THF219	Advanced Acting for the Camera		Focuses on special technical aspects of advanced acting before a camera.	Prerequisites: A grade of C or better in THF209 or permission of Instructor.		Acad	L+L 3.0 4.0 4.0
THO118	Playwriting		Practice and study of theories and techniques of writing for the stage; creating characters, dialogue, and plot for monodramas, scenes, and plays	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
THO130AA	Specialized Stage Combat: Unarmed		Teaches fundamental techniques and	Prerequisites: None.	THO130AA will be	Occ	L+L 1.5 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			terminology of unarmed staged combat as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in unarmed stage combat.		taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.		
THO130AB	Specialized Stage Combat: Broadsword		Teaches fundamental techniques and terminology of staged combat utilizing the broadsword as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the broadsword in stage combat.	Prerequisites: None.	THO130AB will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0
THO130AC	Specialized Stage Combat: Rapier and Dagger		Teaches fundamental techniques and terminology of staged combat utilizing the rapier and dagger as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the rapier and dagger in stage combat.	Prerequisites: None.	THO130AC will be taught by a Society of American Fight Directors (SAFD) certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0
THO130AD	Specialized Stage Combat: Single Sword		Teaches fundamental techniques and terminology of staged	Prerequisites: None.	THO130AD will be taught by a	Occ	L+L 1.5 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			combat utilizing the single sword as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the single sword in stage combat.		Society of American Fight Directors certified teacher, Fight Director, or Fight Master.		
THO130AE	Specialized Stage Combat: Small Sword		Teaches fundamental techniques and terminology of staged combat utilizing the small sword as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the small sword in stage combat.	Prerequisites: None.	THO130AE will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0
THO130AF	Specialized Stage Combat: Sword and Shield/Buckler		Teaches fundamental techniques and terminology of staged combat utilizing the sword and shield/buckler as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the sword and shield/buckler in stage combat.	Prerequisites: None.	THO130AF will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
THO130AG	Specialized Stage Combat: Quarterstaff		Teaches fundamental techniques and terminology of staged combat utilizing the quarterstaff as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the quarterstaff in stage combat.	Prerequisites: None.	THO130AG will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0
THO130AH	Specialized Stage Combat: Knife		Teaches fundamental techniques and terminology of staged combat utilizing the knife as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the knife in stage combat.	Prerequisites: None.	THO130AH will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0
THO135AA	Stage Combat Recertification: Unarmed		Course to provide Society of American Fight Directors (SAFD) recertification in unarmed stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135AA may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
THO135AB	Stage Combat Recertification: Broadsword		Course to provide Society of American Fight Directors (SAFD) recertification in using the broadsword in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135AB may be repeated for credit.	Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
THO135AC	Stage Combat Recertification: Rapier and Dagger		Course to provide Society of American Fight Directors (SAFD) recertification in using the rapier and dagger in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135AC may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
THO135AD	Stage Combat Recertification: Single Sword		Course to provide Society of American Fight Directors (SAFD) recertification in using the single sword in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135AD may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
THO135AE	Stage Combat Recertification: Small Sword		Course to provide Society of American Fight Directors (SAFD) recertification in using the small sword in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135AE may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
THO135AF	Stage Combat Recertification: Sword and Shield/Buckler		Course to provide Society of American Fight Directors (SAFD) recertification in using the sword and shield/buckler in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135AF may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
THO135AG	Stage Combat Recertification: Quarterstaff		Course to provide Society of American Fight Directors (SAFD) recertification in using the quarterstaff in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135AG may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
THO135AH	Stage Combat Recertification: Knife		Course to provide Society of American Fight Directors (SAFD) recertification in using the knife in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135AH may be repeated for credit.	Occ	L+L 0.5 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
THO202AA	Theatre Production I Scene Shop		The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a Theatre Scenic Shop. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use.	Prerequisites: None.	THO202AA may be repeated for a total of four (4) credit hours.	Occ	LAB 1.0 2.0 0.0
THO202AB	Theatre Production I Electrics		The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a Theatre Electric Shop. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use.	Prerequisites: None.	THO202AB may be repeated for a total of four (4) credit hours.	Occ	LAB 1.0 2.0 0.0
THO202AC	Theatre Production I Costume Shop		The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a Theatre Costume Shop. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use.	Prerequisites: None.	THO202AC may be repeated for a total of four (4) credit hours.	Occ	LAB 1.0 2.0 0.0
THO202AD	Theatre Production Advanced Projects		The objective of this course is to provide hands-on experience in the creation of a theatrical production.	Prerequisites: None.	THO202AD may be repeated for a total of four (4)	Occ	LAB 1.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			This course is tailored around the work done in a leadership role on a theatrical production. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use.		credit hours.		
THO203	Technical Theatre Production		Designed to give college credit to the technical production crews of college theatre productions.	Prerequisites: None.	THO203 may be repeated for up to a maximum of nine (9) credits.	Occ	LAB 3.0 6.0 6.0
THO208	Costume Play Solo Performance Practicum		Introduction to Costume Play (Cosplay) skills for the creation of a solo based performance through practical experience. Focus on the origins of Cosplay and use of tools for prop and costume development, design and application of make-up, safety practices, character development and performance, and growing a social presence for promotion.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
THO209	Costume Play Group Performance Practicum		Introduction to Costume Play (Cosplay) skills for the creation of a group based performance through practical experience. Focus on the development and collaborative performance of Cosplay characters within a canon/shared world. Use of tools for prop and costume development, design and application of make-up, safety practices, and growing a social presence for promotion.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
THO215	Advanced Makeup Techniques for Stage and Screen		Advanced character analysis and makeup design for stage and screen. Technical application of makeup for stage and screen.	Prerequisites: A grade of C or better in THF115.		Occ	L+L 3.0 4.0 4.0
THO216	Wig and Hair Production for Theatre and Film		Introduction to wig technology, including the use of tools and techniques for making, ventilating, measuring, and styling period wigs.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
THO218	Beginning Stage Lighting		Basic theories and methods of stage lighting for all production types. Emphasis on technical/theoretical facts, artistic/design concept development, and teamwork structure of theatre. Examines stage lighting optics, instrument selection and application, color theory, circuiting and control systems, and basic design.	Prerequisites: A grade of C or better in THP213 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0
THO219	Introduction to Puppetry		Use of different types of puppets in a variety of performance settings. Practical experience with diverse audiences.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
THO225	Visual Script Analysis		Theory and practice in analysis of dramatic literature for the technician and designer. Emphasis on techniques of script analysis for visual information.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
THO226	Theatrical Design: Costuming		Basic techniques involved in researching and designing costumes for the stage.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
THO235	Principles of Stage Combat Safety/Fight Captain		Evaluate stage combat performances for safety in order to identify issues that might require intervention, communication, and revision. Course to prepare students for work as a fight captain in a stage or film environment. Provides opportunity to practice weapon maintenance	Prerequisites: A grade of C or better in at least four (4) stage combat courses (THO130AA, THO130AB, THO130AC, THO130AD, THO130AE, THO130AF, THO130AG,		Occ	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and instruction; safe choreography; analysis of how choreography design elements affect safety; written and recorded choreography notation; and the implementation and communication of choreography and intervention strategies. Includes practical experience as a teaching assistant for other stage combat courses or as an assistant fight captain on dramatic productions.	or THO130AH) or permission of Program Director.			
THO246	Digital Fabrication	AVC246	Introduction to concepts and application of computer visualization, modeling, and rapid prototyping for interdisciplinary arts. Students will design sculptures applying 3D computer modeling techniques, rapid prototyping, and other available digital output devices to produce solid models.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
THO250	Stage Properties		Introduction to stage properties including design, construction and maintenance features. Provides skills in property design and construction using an assortment of standard materials.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
THO251	Safety Practices in Theatre and Film Production		Safety practices in theatre and film production. Includes Focus on national safety organizations and production practices of theatre stages and soundstages, theatrical rigging, electrical, scenic construction, paint and chemical handling, automation, special effects, welding, and personal safety practices.	Prerequisites: None		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
THO260	Theatrical Design: Rendering		Provides experience and explores multiple illustration techniques used to communicate ideas in entertainment production. Provides basic skills including pictorial drawing and sketching.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
THO261	Previsualization Modeling		Provides experience and explores basic pre-visualization methods used to communicate ideas in entertainment preproduction. Provides basic models skills.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
THO262	Entertainment Industry Design Drafting		The fundamentals of drafting for the Entertainment Industry. Includes drafting equipment, geometry, lettering, symbols, drawings (orthographic, isometric, oblique, sectional) and standard drawings used in the entertainment industry including floor plans, sections, elevations, working drawings, and perspective.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
THO263	Entertainment Industry Drafting I: 2D CAD		Introduction to Computer Aided Drafting (CAD) for the Entertainment industry, including stage, screen and television venues, using CAD software. Includes basic set-ups, formats, two-dimensional drawing and editing commands, dimensions, text, and plotting typical to entertainment industries.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
THO265	Introduction to Stage Management		The focus of this course is the role of the stage manager. Topics include all aspects of preparation and implementation of rehearsals and performances for the stage manager position.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
THO266	Production Careers in Technical Theatre		Provides the continuing design, stage management and	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technical student with opportunities to explore the versatility of the job opportunities within the Tech Theatre industry. Emphasis on presenting the work and talent both in person and on paper. Development of a professional resume and vita.				
THO267	Painting Techniques for Film, TV and Theatre		Theory and skills in scenic artistry. Techniques of painting two-dimensional and three-dimensional scenery, tools, and the use of color.	Prerequisites: A grade of C or better in THP213.		Occ	L+L 3.0 4.0 4.0
THO268	Opportunities in Production		Provides the continuing design student, dramaturge, stage management, technical director, and directing students with opportunities to expand the versatility of professional skills. Emphasis on relating their work to the total production process. Linking design ideas to production concept. Maintain dramaturge, stage manager, director documentation. Practical application of student work for portfolio development.	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 6.0 6.0
THO269	Technical Theatre Portfolio Development		The analysis and preparation of all elements of a Technical Theatre/Design Portfolio including the use of digital portfolios and application to specific disciplines. Practice with portfolio presentation and maintaining and updating portfolio materials.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
THO270	Musical Theatre Workshop	MUP270	Workshop in the study and performance of Musical Theatre repertoire. Includes audition techniques, stage directions,	Prerequisites: None.	MUP/THO270 may be repeated for credit.	Occ	L+L 2.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.				
THO270AA	Musical Theatre Workshop	MUP270A A	Workshop in the study and performance of musical theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.	Prerequisites: None.	MUP/THO270AA may be repeated for a total of two (2) credits.	Occ	LAB 1.0 3.0 3.0
THO296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Occ	LAB 1.0 5.0 0.0
THO296WB	Cooperative Education		Work-college experiences that involve	Prerequisites: Completion		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
THO296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one		Occ	LAB 3.0 15.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				class which is related to student's major or career interest or with permission of the Instructor.			
THO296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.	Completion of at least twelve (12) college credits minimum 2.6	Occ	LAB 4.0 20.0 0.0
THP102	Theatre Service Practicum		Use and develop theatrical skills for service to the community through practical experience.	Prerequisites: Permission of Department or Division.		Acad	LAB 1.0 2.0 2.0
THP112	Acting I		Fundamental techniques and terminology of acting through physical and vocal expression, improvisation, and monologue and scene work. Emphasis on characterization.	Prerequisites: None.		Acad	L+L 3.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
THP131	Stage Movement		Movement skills for the actor to develop a flexible, expressive physical instrument. Includes pantomime, physical isolation, and awareness exercises	Prerequisites: None.		Acad	L+L 3.0 4.0 4.0
THP151	Theatre for Youth		Principles and techniques of selecting plays, adapting stories, playwriting, directing, designing, producing, and acting in theatre for youth. The course will provide the opportunity to analyze and experience the production process from creating a script to performing a theatre production for a youth audience.	Prerequisites: None.	THP151 may be repeated for a total of six (6) credit hours.	Acad	L+L 3.0 4.0 4.0
THP201AA	Theatre Production I		Designed to give college credit to the cast and technical production crews of college theatre productions.	Prerequisites: None.	THP201AA may be repeated for a total of four (4) credit hours.	Acad	LAB 1.0 2.0 2.0
THP201AB	Theatre Production II		Designed to give college credit to the cast and technical production crews of college theatre productions.	Prerequisites: None.	THP201AB may be repeated for a total of four (4) credit hours.	Acad	LAB 2.0 4.0 4.0
THP202	Theatre Production Projects		The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done on a production. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use.	Prerequisites: None.	THP202 may be repeated for a total of four (4) credit hours. Repeats 4.0 4.0	Acad	LAB 1.0 2.0 0.0
THP206	Introduction to Costume Construction for Theatre		Introduction to basic principles used in costuming for theatre including the use of tools	Prerequisites: None.		Acad	LEC 4.0 4.0 4.0 LAB 0.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and techniques for costume construction, understanding of fabrics and materials, and a selected survey of historical fashion.				
THP211	Creative Drama		Theory and practice of creative drama, including improvisation, storytelling, puppetry, and script and program development in drama, and their application to elementary and secondary school levels	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
THP211AA	Creative Drama: Improvisation		Theory and practice of creative drama, including improvisation. Covers improvisation theatre-based activities. Emphasis on application in elementary and secondary school levels	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
THP211AB	Creative Drama: Storytelling/ Puppets		Theory and practice of creative drama in storytelling and puppetry. Covers use of puppets to enhance storytelling skills. Emphasis on application in elementary and secondary school levels	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
THP211AC	Creative Drama: Script Development		Theory and practice of creative drama in script development. Covers creation and adaptation of dramatic materials from a variety of sources. Emphasis on application in elementary and secondary school levels	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0
THP212	Acting II		Fundamental techniques of acting through script analysis, rehearsal, and performance	Prerequisites: A grade of C or better in THP112 or permission of Department or Division.		Acad	L+L 3.0 4.0 4.0
THP213	Introduction to Technical Theatre		Procedures of technical theatre production and demonstration. Topics include design and construction of scenery, lighting, and properties.	Prerequisites: None.		Acad	LEC 4.0 4.0 4.0 LAB 0.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
THP214	Directing Techniques		Contemporary theory and practice in directing, the evolution of present-day directing procedures, and a sampling of scripts for directing practice. Principles of script analysis, blocking, casting, rehearsing, and performing.	Prerequisites: A grade of C or better in THP112 or THE220, or permission of Instructor.		Acad	L+L 3.0 4.0 4.0
THP217	Introduction to Design Scenography		The role of the theatre designer in creating scenic, lighting, costume, sound, and multimedia effects for stage productions. Elements of the design process and communication of dramatic themes and visions to the audience.	Prerequisites: None.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU]	Acad	L+L 3.0 4.0 4.0
THP241	Oral Interpretation of Literature	COM241	The study, analysis, and preparation for performance of prose, poetry, and dramatic literature. Preparation of material for public audiences.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation : Humanities, Arts and Design - [HU] General Education Designation : Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0
THP271	Voice and Diction	COM271	Exercises and techniques to free the voice and improve projection, resonance, and articulation. Covers international phonetic alphabet and standard stage speech	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
THP273	Musical Theatre Production	MUP273	Principles and techniques for musical theatre production performance. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal	Prerequisites: By audition.		Acad	LAB 1.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			technique, stage movement, crew roles, and performance.				
THP281	Production and Acting I		Provides the continuing acting student with opportunities to expand the versatility of characterization skills. Emphasis on relating the actor's work to the total production process. Performance of monologues, scenes, and one-act plays.	Prerequisites: Permission of Department or Division.		Acad	L+L 3.0 4.0 4.0
THP282	Production and Acting II		Provides the continuing acting student with opportunities to expand the versatility of characterization skills. Emphasis on relating the actor's work to the total production process. Performance of monologues, scenes, and one-act plays	Prerequisites: A grade of C or better in THP281 or permission of Department or Division.		Acad	L+L 3.0 4.0 4.0
THP285	Creating/Performing Solo/Collaborative Works	STO285	Developing, rehearsing, and performing solo and collaborative works for fringe festivals and other storytelling and theatre venues.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
THP291AA	Summer Conservatory: Stage Movement		Techniques of body centering, coordination, relaxation, energization, and physical expression for the actor.	Prerequisites: By audition and interview only, or permission of Instructor, or Program Director.	RDG100 satisfies RDG091 requirement . RDG100 may be repeated for a total of twelve (12) credit hours.	Acad	L+L 1.0 2.0 2.0
THP291AB	Summer Conservatory: Voice and Diction		Basic principles and techniques of voice production and stage speech for the actor.	Prerequisites: By audition and interview only, or permission of Instructor, or Program Director.	THP291AA may be repeated for a total of three (3) credit hours.	Acad	L+L 1.0 2.0 2.0
THP291AC	Summer Conservatory: Script Analysis (ACT)		Theory and practice in analysis of dramatic literature for the actor. Emphasis on techniques of character analysis for interpretation.	By audition and interview only.	THP291AC may be repeated for a total of three (3)	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					credit hours.		
THP291AD	Summer Conservatory: Improvisation		Techniques of improvisation to develop the actor's creativity. Emphasis on inner resources, sensory memory, and emotional memory.	Prerequisites: By audition and interview only, or permission of Instructor, or Program Director.	THP291AB may be repeated for a total of three (3) credit hours.	Acad	L+L 1.0 2.0 2.0
THP291AE	Summer Conservatory: Scene Study		Basic methodology and process of rehearsing and creating a character through prepared scenes for faculty critique and analysis.	Prerequisites: By audition and interview only, or permission of Instructor, or Program Director.	THP291AD may be repeated for a total of three (3) credit hours.	Acad	L+L 1.0 2.0 3.0
THP291AG	Summer Conservatory: Production (ACT)		Practicum in rehearsal and stage performance through public productions.	Prerequisites: By audition and interview only.	THP291AG may be repeated for a total of twelve (12) credit hours.	Acad	L+L 4.0 5.0 5.0
THP292AA	Summer Conservatory: Theatre Technology		Theory and practice of technical phases of play production. Includes applications in scenery, properties, and lighting.	Prerequisites: By interview only.	THP292AA may be repeated for a total of nine (9) credit hours.	Acad	L+L 3.0 4.0 4.0
THP292AB	Summer Conservatory: Projects		Independent supervised studies in technical theatre applications. Emphasis on topic selection addressing individual student interests and abilities.	Prerequisites: By interview only.	THP292AB may be repeated for a total of nine (9) credit hours.	Acad	L+L 3.0 4.0 4.0
THP292AC	Summer Conservatory: Script Analysis (TECH)		Theory and practice in analysis of dramatic literature as preparation for technical production applications.	Prerequisites: By interview only.	THP292AC may be repeated for a total of three (3) credit hours.	Acad	LEC 1.0 1.0 1.0
THP292AD	Summer Conservatory: Career Development (TECH)		Techniques of preparation and presentation of professional materials for the theatre technician and designer.	Prerequisites: By interview only.	THP292AD may be repeated for a total of three (3) credit hours.	Acad	L+L 1.0 2.0 2.0
THP292AE	Summer Conservatory: Production (TECH)		Practicum in various aspects of technical	Prerequisites: By interview only.	THP292AE may be repeated for	Acad	L+L 4.0 5.0 5.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			theatre production for public performance.		a total of twelve (12) credit hours.		
THP296WA	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0
THP296WB	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job		Acad	LAB 1.0 5.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
THP296WC	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0
THP296WD	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to	Prerequisites: Completion of at least twelve (12) college credits,		Acad	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the career objectives of the students.	minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			
THP298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
THP298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
THP298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0
TLT100	Telecommunications Math		Application of the scientific calculator to solve mathematical problems in telecommunications electronics. Scientific notation, engineering notation, metric conversion, algebraic equations, linear equations, graph interpretation, exponents, logarithmic expressions and, binary/hexadecimal concepts related to subnetting.	Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/ Division Chair.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
TLT141	Telecommunications Computer Operations		Telecommunications computer operation principles. Covers online training resource utilization, computer log-on procedures, and computer shortcut creation. Also includes specific computer software performance information	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
TLT142	Drop Connections		Technical concepts for drop connections. Includes passive and active devices as well as use of filters. Also covers electronics hook up and troubleshooting procedures.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
TLT143	Digital Video Systems		Customer cable digital video signal reception establishment procedures. Covers system feature information, signal fault identification, and system and end-use equipment troubleshooting procedures. Also includes customer education information.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
TLT144	Drop Planning and Maintenance		Procedures for the planning and installation of Broadband Networks to a customer address. Emphasis on drop connection location, configuration, and hardware component selection. Covers internal cable routing considerations and grounding, splitting, and directional tap/coupler component information. Also includes basic Broadband Network operation information and electronic hook-up procedures.ectronic hook-up procedures.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
TLT149	Digital Phone Network Installation		Telephone network installation procedures. Emphasis on multi dwelling unit, multiple	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			broadband applications, and residential telephone networks. Covers component connection as well as basic electronics principles.				
TLT152	Telecommunications Product Knowledge		Telecommunications industry product and service information. Emphasis on video, Internet connection, and telephone services. Covers the advantages and disadvantages of telecommunications product types and the various features associated with each service.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
TLT154	Technical Support Representative Foundations		Foundations of services, products, and regulations in the communications industry. Includes customer database research techniques as well as troubleshooting and billing procedures.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
TLT155	Technical Support Representative Telephony		Practical application of digital telephony account services. Includes account research and creation of work orders in addition to access and navigation of troubleshooting databases. Also covers procedures for managing billing accounts and services.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
TLT160	Video Technical Training		Analog and digital video technical training procedures. Includes cabling options and types of digital video equipment, as well as products and services. Also covers procedures for completing customer video orders in the Integrated Communications Operations Management System (ICOMS). Troubleshooting	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			procedures, tools, and video flows also included.				
TLT161	Video Technical Training Lab		Practical application of analog and digital video technical training procedures. Covers procedures for completing customer video orders in the Integrated Communications Operations Management System (ICOMS)	Prerequisites: None.		Occ	LAB 1.0 2.0 2.0
TLT162	High Speed Internet/Networking		High speed internet installation and networking. Includes features and services of high-speed internet as well as procedures for installation. Also covers home network installation and configuration.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
TLT163	High Speed Internet Technical Training		Procedures for presenting high speed internet products and services. Includes service tiers as well as network facilities and responsibilities. Also covers navigation of operating systems and troubleshooting common problems and procedures.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0
TLT164	High Speed Internet Technical Training Lab		Practical application of high speed internet technical training procedures. Covers procedures for completing customer orders in the Integrated Communications Operations Management System (ICOMS) and various industry databases	Prerequisites: None.		Occ	LAB 1.0 2.0 2.0
TLT165	Technical Support Representative Telephony Lab		Digital telephony account services. Includes use of the Integrated Communications Operations Management System (ICOMS) and industry databases to	Prerequisites: None.		Occ	LAB 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			complete account services				
TLT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
TLT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
TLT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
TQM101	Quality Customer Service	CSM101	Examines the nature of quality customer service and the attitudes, knowledge, and skill needed to work effectively in a quality customer service environment. Foundation skills for quality customer services are taught, applied, and practiced	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
TQM220	Leadership and Empowerment Strategies		Methods for facilitating teams and empowering employees which effectively enable all employees to act upon a shared vision.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
TQM230	Teamwork Dynamics		Theory and practice of how team members and team leaders use listening, negotiating and interpersonal skills for the enhancement of team process. Included are concepts of team development and team problem-solving techniques.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
TQM235	Motivation, Evaluation, and Recognition Systems		Presents methods for benchmarking, assessing team performance, linking recognition to team performance, and valuing victories and mistakes with all personnel.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
TQM240	Project Management in Quality Organizations		Presents methods for quality organizations in how to plan and schedule a project in use of Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT) techniques and software	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to monitor and control projects				
TRS100	Survey of Translation and Interpretation		Professional, sociolinguistic, and cognitive aspects of translation and interpretation. Includes social justice goals and language policy for interpretation and translation, role of translators and interpreters, consecutive interpretation, role of norms in legal translation, conservation of meaning, register, and style, meaning of translation, health care interpretation and translation, business and technical translation	Prerequisites: None.		Acad	LEC 4.0 4.0 4.0
TRS102	Translation of English to Spanish		Analysis of the Spanish language with an emphasis on cross-language similarities and differences. Includes the structure of Spanish, cultural and stylistic components, semantics, dialectal differences and lexical obstacles. Widening of lexicon across specific lexical fields and wider shared underpinnings of Greco-Latin etymologies. Brief introduction to historical development of the Spanish language with specific focus on cognates and false cognates.	Prerequisites: A grade of C or better in (SPA202 or SPA204) and permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0
TRS103	Translation of Spanish to English		Analysis of the English language with an emphasis on cross-language similarities and differences. Course includes the structure of English, cultural and stylistic components, semantics, Standard English conventions, and metaphorical and idiomatic English. Introduction to	Prerequisites: A grade of C or better in (ENG102 or ENG108) and (SPA202 or SPA204) and permission of Department or Division. Completion of prerequisites		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			translation of basic documents from Spanish to English.	within the last three years is required.			
UAS100	sUAS Batteries and Electronics		Small Unmanned Aircraft Systems (sUAS) basic electronics and circuits, communications, information display systems, transmitter and receiver fundamentals, flight controller installation and tuning, lithium polymer battery basics, radio telemetry, basic electrical troubleshooting and repair techniques.	Prerequisites: Appropriate placement test score in Reading, Writing and Math, or [eligibility in ENG101, (RDG100 or RDG100LL), MAT120, MAT121 and MAT122].		Occ	LEC 5.0 5.0 5.0
UAS101	Introduction to Unmanned Aircraft Systems Operation		Introduction to Unmanned Aircraft Systems (UAS) history, flight, avionics, sensors, communication systems, and an introduction to data analysis and applications, such as first responders, Geographic Information Systems, and Precision Agriculture.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UAS107	Unmanned Aircraft Systems Operator Certification		Develop knowledge and skills needed to manage and operate small Unmanned Aircraft Systems (sUAS). Includes Federal Aviation Regulations, radio communications, weather, airspace and airport authorization criteria, loading and performance, aeronautical decision making, sUAS flight operations, and maintenance. Operational skills acquired through both classroom and hands-on flight activities.	Prerequisites: None.	AET138 students must complete the appropriate flight lessons to satisfactorily complete the course.	Occ	LEC 3.0 3.0 3.0
UAS205	sUAS Instruments and Autopilot Programming and Uses		Small unmanned aircraft systems (sUAS) proper operation of ground control stations with remote aircraft, troubleshooting radio link issues, changing	Prerequisites: A grade of C or better in UAS101 and UAS107. Corequisites: UAS206,		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			parameters, setting up waypoints, flying on autopilot only.				
UAS206	sUAS Instrument and Autopilot Flight Lab		Students will use their advanced skills to manipulate a ground control station in the practical operation of Small Unmanned Aircraft Systems (sUAS) in a controlled, but realistic environment.	Prerequisites: A grade of C or better in UAS101 and UAS107. Corequisites: UAS205.		Occ	LAB 2.0 2.0 2.0
UAS207	sUAS Dynamics and Design		Design, configuration, and concepts of Small Unmanned Aircraft Systems (sUAS). Platform types including multi-rotors, single rotor, and fixed wing aircraft.	Prerequisites: A grade of C or better in UAS205 and UAS206. Corequisites: UAS208.		Occ	LEC 5.0 5.0 5.0
UAS208	sUAS Dynamics and Design Lab		Students will assemble, program, preflight, and fly a Small Unmanned Aircraft System (sUAS) manufacturing equipment.	Prerequisites: A grade of C or better in UAS205 and UAS206. Corequisites: UAS207.		Occ	LAB 2.0 2.0 2.0
UAS211	sUAS Ground Control Stations, Telemetry, and Communications		Small Unmanned Aircraft Systems (sUAS) proper set-up, operation, and basic troubleshooting of many different Ground Control Stations used in the industry. Set-up, use, and configuration of different radio telemetry units. Proper use and procedures of communications with Air Traffic Control. Proper use of applications for use in Air Traffic Management.	Prerequisites: A grade of C or better in UAS207 and UAS208.		Occ	L+L 3.0 4.0 4.0
UAS212	sUAS Maintenance Lab		Proper inspection, troubleshooting, and repair techniques for Small Unmanned Aircraft Systems (sUAS).	Prerequisites: A grade of C or better in UAS207 and UAS208.		Occ	LAB 2.0 2.0 2.0
UAS215	sUAS Commercial Flight Training		Proper pre-flight and operation techniques used in a Small Unmanned Aircraft (sUAS) Commercial Environment. Gathering digital information from an inspection or surveillance flight, then	Prerequisites: A grade of C or better in UAS207 and UAS208.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			demonstrate post-production skills and techniques for a useable customer product.				
UCS101	Introduction to Billing		An introduction to basic billing procedures in the public utility industry. Includes computer familiarization, coordinates system, billing cycle, payment plans, and components of the bill.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UCS105	Introduction to Public Utility		Introduction to public utility customer service operations. Emphasis on public utility workstation components and usage procedures. Covers customer service, documentation, and confidentiality policies, as well as service area geography.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
UCS108	Account Services for Public Utilities		Overview of procedures for accessing and maintaining customer accounts. Includes the billing cycle, rates and payment options as well as various types of service orders	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
UCS110	Meter and Trouble Orders		Fundamentals of meters and their functions. Instruction on handling trouble calls and determining and processing corrective action.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
UCS115	Introduction to Water Customer Services		Introduction to water customer account services. Includes the irrigation process, accounts, and schedules. Also covers delivery systems, controls, and use of a mapping system in addition to water rights and typical irrigation problems.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
UCS116	Water Services Accounts I		Water services procedures and restrictions for opening, combining, and updating accounts as well as	Prerequisites: A grade of C or better in UCS115.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			responding to billing and payment inquiries and opening accounts. Also covers Supplemental Supply Program (SSP) water and various user accounts in addition to company role and responsibilities.				
UCS117	Water Services Accounts II		Water services rules and restrictions for handling property sales, special requests, and order revisions in addition to typical irrigation problems. Also covers procedures for handling private system controls, flood calls, and water theft issues as well as facility notices.	Prerequisites: A grade of C or better in UCS116.		Occ	LEC 2.0 2.0 2.0
UCS118	Water Customer Services Procedures I		Practical application of water customer account services. Includes procedures for creating, accessing, and updating accounts as well as completing and documenting water orders. Also covers use of the mapping system and procedures for handling typical irrigation calls.	Prerequisites: A grade of C or better in UCS115.		Occ	L+L 2.0 4.0 4.0
UCS119	Water Customer Services Procedures II		Procedures for completing billing and payment account procedures. Covers refunds, overdraft accounts, and procedures for handling water theft. Also covers special requests, flood calls, and townsite issues in addition to Supplemental Supply Program (SSP) requests.	Prerequisites: A grade of C or better in UCS118.		Occ	L+L 2.0 4.0 4.0
UCS120	Payments, Credits and Rates		Examination of procedures to perform payment, deposit and credit operations. Includes various connect orders and rate calculations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
UCS122	Public Utility Orders I		Procedures for processing public utility customer requests. Emphasis on determining billing options, service plans, and payment procedures. Covers new account establishment and field activity order processing. Also includes meter processes and rate change procedures.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: UCS105.		Occ	LEC 3.0 3.0 3.0
UCS124	Public Utility Orders II		Practical application in processing public utility customer orders. Emphasis on using workstation and software applications. Covers shut-off, as well as the creation of new accounts. Also covers order modification, payment options, service plan, and deposit requirements.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: UCS122.		Occ	L+L 3.0 4.0 4.0
UCS126	Public Utility Service Practices		Application of public utility customer service practices. Covers account and service plan enrollment, modifications, and cancellations. Includes account handling exceptions and service area geography. Computer usage emphasized.	Prerequisites: A grade of C or better in UCS124 or Corequisites: UCS124.		Occ	L+L 2.0 3.0 3.0
UCS128	Public Utility Processing		Public utility service processes. Includes procedures for processing multiple service orders, turn-on orders, trouble and outages, and electrical safety hazard orders. Customer service and professional interpersonal communications emphasized.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: UCS126.		Occ	LEC 3.0 3.0 3.0
UCS130	Service Orders I		Fundamentals of processing service orders. Emphasis on customer service,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			making determinations of services required and placing appropriate orders				
UCS134	Advanced Public Utility Processing		Procedures for practical application in processing public utility customer requests. Includes advanced billing inquires, collection, and documentation procedures, as well as energy usage analysis and consumption rates. Meter reads and billing adjustments also covered.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: UCS128.		Occ	L+L 3.0 4.0 4.0
UCS135	Service Orders II		Further examination of the processing of service orders. Emphasis on customer account data, account status, third party billings and placing appropriate orders	Prerequisites: A grade of C or better in UCS130.		Occ	LEC 2.0 2.0 2.0
UCS140	Service Order Procedures		Practical application of service order processing. Includes meter and trouble orders, requests for service, billings and rates, as well as account turn-offs and reconnects.	Prerequisites: A grade of C or better in UCS135.		Occ	L+L 2.0 4.0 4.0
UCS180	Introduction to Water Delivery Customer Service		Introduction to water customer delivery operations. Includes an overview of the irrigation process, the irrigation system, delivery responsibilities and schedules. Also covers delivery systems, controls, and use of a mapping system in addition to water rights and typical irrigation problems.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UCS182	Water Delivery Management		Water delivery procedures for managing the flow of irrigation water through the irrigation system to both residential and agricultural customers. Also covers field customer service for agricultural and	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			residential water customers as well as role and responsibilities for irrigation water delivery.				
UCS184	Water Delivery Operations		Water delivery service areas, delivery devices, and responsibilities for managing irrigation water. Covers procedures for handling system controls and issues as it relates to water delivery in addition to procedures for dry-up and clearance.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
UCS186	Water Delivery Measurements		Practical application of irrigation water delivery measurement. Includes procedures to safely and correctly open water delivery devices, determine accuracy of and correct water flow. Also covers safety and security procedures.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0
UCS188	Water Delivery Operations Lab		Practical application of water delivery procedures for managing the flow of water through the irrigation system to both residential and agricultural customers.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0
UTP110	Hand and Power Tools for Linemen		Use, maintenance, and safety procedures for common hand and power tools used in the electric power industry.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
UTP111	Line Work Equipment and Safety		Overview of the line work industry including its history, technological developments, and current practices. Covers an introduction to industry equipment and tools with a focus on safety practices and procedures. Inspection and maintenance of equipment and tools used in pole climbing and cover-up procedures. Emphasis on safety operations.	Prerequisites: None.		Occ	LEC 4.0 4.0 4.0
UTP112	Line Construction		Introduction to line construction equipment	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and procedures. Includes personal protective equipment, climbing equipment, and basic line materials. Also covers procedures for handling wood poles, de-energized lines, and one-man pole-top rescues, in addition to equipment and procedures for grounding and creating a safe zone.				
UTP113	Rigging Fundamentals		Fundamentals of rigging for linemen. Includes safe use of rigging components including ropes, knots, handlines, and block and tackle. Covers rigging calculations and approaches to basic rigging tasks, in addition to hazards.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UTP114	Line Construction Procedures		Line construction procedures including pole change out, horizontal line construction, and taking lines out of service. Covers distribution line symbols, compatible units, and second point of contact, in addition to calculating pulling tension and procedures for stringing overhead service and approaching hot circuits.	Prerequisites: A grade of C or better in UTP112.		Occ	LEC 3.0 3.0 3.0
UTP115	Underground Line Construction		Introduction to underground line construction. Includes a comparison of duct and vault underground systems. Also covers Blue Stake laws and markings, procedures for pulling and maintaining underground cable, and safety considerations for trenching and excavating.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
UTP150	Introduction to Transformer Theory		Introduction to transformers and transformer theory.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Covers the basic structure, components and applications of single-phase and three phase transformers. Includes interpretation of transformer nameplates, in addition to characteristics and functions of distribution transformers.				
UTP151	Transformer Theory Design and Function		Comparison of function of various types of transformers. Includes design of single-phase and three-phase transformers, as well as safety procedures and precautions for energizing transformers. Also covers wiring transformers in parallel and three-phase connection diagrams.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UTP152	Transformer Diagramming and Calculations		Diagramming and calculations in transformer theory. Includes use of the Pythagorean Theorem and sine and cosine waves and functions to complete calculations. Also covers secondary and primary voltage, voltage ratio and loss calculations, in addition to blueprint reading.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UTP155	Introduction to Hot Stick		Introduction to hot stick terminology, tools, and procedures. Includes procedures for cleaning, storage, and handling in addition to inspection and testing. Also covers tie-wires, preform ties, hold tags, and live line tailboard development.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UTP156	Hot Stick Theory and Calculations		Rigging theory and calculations for hot stick application, including Working Load Limit (WLL). Also covers slings, personal protective grounding, and protective cover, in	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			addition to energized conductors and lines.				
UTP157	Hot Stick Work Site and Equipment		Hot stick work site, materials, and equipment procedures. Covers fault location, meter load, tower erection, and phasing sequences in addition to procedures for managing safety in confined spaces. Also includes cable preparation and pulling procedures as well as equipment and site operations and safety.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UTP210	Personal Protective Grounding		Considerations and procedures for personal protective grounding with a review of basic electrical circuits. Covers function, sizing, and installation of protective grounding sets on trucks, underground distribution systems, and construction projects. Also covers resistance testing, equipotential zones, lightning protection, and live line tools.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
UTP211	Overhead Distribution Line Design		Introduction to overhead distribution line construction design. Includes overhead construction standards, distribution pole standards, and primary construction units as well as controls and installation standards for various types of capacitors. Also covers clearances, calculations, drawings, and design criteria for overhead distribution line design.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UTP212	Underground Distribution Line Design		Introduction to underground distribution line construction design. Includes construction assembly units, capacitor banks, switching, and fusing as	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			well as applications for conduit and feeder riser compatible units. Also covers clearances, calculations, drawings, and design criteria for underground distribution line design.				
UTP215	Emerging Technologies		Overview of emerging technologies in electrical energy production. Includes applications, limitations, and advantages of various types of alternative energy. Also covers characteristics of and advantages to the use of fiber optics. Design and function of Extra High Voltage (EHV) lines also examined.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
UTP216	Transformer Operations and Troubleshooting		Advanced transformer operation and troubleshooting procedures. Includes characteristics of three-phase systems, distribution capacitors, and fusing. Covers transformer calculation including voltage regulation, fault current, and load. Procedures for isolating and testing transformers and system change-out also covered.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UTP217	Electrical Substations		A comparison of operation and design of various types of substations. Includes construction planning, design, diagrams, and blueprints, in addition to hazards and safety issues. Also covers substation stresses, superstructures, and equipment function and maintenance.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
UTP250	Maps and Schematics for Linemen		Components, coordinates, and symbols for maps and schematics used by linemen. Also includes	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			procedures for access and navigation of mobile Geographic Information Systems (GIS).				
UTP251	Metering Theory for Linemen		Concepts of energy measurement and metering theory for linemen. Includes the power triangle and various metering types, ratings, and strategies for troubleshooting metering problems.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
UTP255	Power Distribution Operations		Transmission and Generation Operations (TGO), Distribution Operations Center (DOC), and Power Distribution Operations (PDO) organization and responsibilities.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
UTP258	Applied Line Topics		Applied line topics for linemen. Includes rigging calculations and derating factors as well as diagramming of three-phase vectors and wiring. Also covers procedures, documentation, and restrictions for receiving, modifying, and releasing clearances.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0
VET101	Introduction to Veterinary Technology		Introduces the role of the veterinary paraprofessional to the veterinary science industry. Addresses professional development, including ethics, professionalism, and legal implications of veterinary practice. Students will be introduced to animal husbandry and nutrition, animal behavior, species and breed identification, the human-animal bond, biosecurity, equine medicine, livestock medicine, companion animal medicine, and lab animal medicine.	Prerequisites: None. Corequisites: VET101LL.	Completion of High school biology is recommend ed prior to enrolling in VET101.	Occ	LEC 3.0 3.0 3.0
VET101LL	Animal Care Skills I Laboratory		Principles of daily animal husbandry, socialization,	Prerequisites: None.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			enrichment, and clinical care of animals housed in campus facilities. Introductory veterinary technology students work on building teamwork, communication and veterinary technical skills encountered in the daily operations of a multi-species veterinary facility.	Corequisites: VET101.			
VET103	Veterinary Assisting I		Provides students with the hands-on skills needed to perform the duties of a veterinary assistant. Introduction of the basic veterinary assistant skills needed to assist veterinary professionals in the quality care of animals. Includes basic introduction to anatomy and physiology of domestic animals, front office skills, communication and client relations, animal restraint, nursing, vaccinations and other basic assisting skills.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
VET104	Veterinary Assisting II		This is a lecture/laboratory course where students will learn hands on skills needed to perform the duties of a veterinary assistant. The course will build foundation skills for veterinary clinical care for the veterinary assistant. This course includes foundations in pharmacy and pharmacology, surgical preparation and assisting, the veterinary assistant's role in collection of laboratory samples, and diagnostic imaging.	Prerequisites: A grade of C or better in VET101 and VET103. High school biology strongly recommende d.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0
VET109	Veterinary Assisting Internship		Provides students with clinical experience in a small animal general	Prerequisites: A grade of C or better in		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			veterinary practice. Provides the opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework at a veterinary assistant level. Students have exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the National Association of Veterinary Technicians in America Veterinary Assistant Student Essential and Recommended Skills list.	VET101 and VET103. Corequisites: VET104.			
VET112	Animal Nursing I		Training in and supervised performance of skills necessary in the husbandry and clinical care and treatment of animals. Occupational hazards and safety in livestock, companion animal, and laboratory animal facilities. Introduction to medical terminology. Restraint and handling, feeding, and housing of a variety of animal species. Physical examination of various species of animals. Principles of sanitation, disinfection, sterilization, and aseptic technique. Principles and techniques of medication administration, fluid therapy, and vaccination. Familiarization with operation of various types of animal care equipment. Introduction to laboratory techniques.	Prerequisites: A grade of C or better in VET101 and admission to the Veterinary Technology/Animal Health program or permission of Instructor.		Occ	LEC 2.0 2.0 2.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Professional ethics and the human-animal bond.				
VET132	Veterinary Office Management and Client Communication		Principles and practice of veterinary office management for veterinary technology students. Client relations, receptionist skills, telephone techniques, interpersonal skills, and personnel management. Generation and maintenance of correspondence, medical records, legal forms, and hospital logs. Basic bookkeeping, accounting, and financial management principles. Marketing and public relations. Professional ethics and professionalism. Use of computers for data entry, patient record management and inventory control.	Prerequisites: A grade of C or better in VET101 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0
VET140	Animal Care Skills II		Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology classes. Students expand their animal care knowledge, skills and abilities to include skills needed to be successful in clinical internships.	Prerequisites: None. Corequisites: VET150 or VET151 and admission to the Veterinary Technology program.	VET140 may be repeated for a total of four (4) credit hours.	Occ	LAB 2.0 2.0 0.0
VET150	Veterinary Anatomy and Physiology I		Comparative evaluation of the anatomy and physiological functions of various body systems of livestock, companion animals, and laboratory animals.	Prerequisites: A grade of C or better in (BIO181, CHM130, CHM130LL, CRE101, ENG102, MAT120, and VET101) and admission to the Veterinary Technology/A		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				nimal Health Program.			
VET150LL	Veterinary Anatomy and Physiology Laboratory I		Laboratory experience in support of VET150. Includes dissection of preserved animal specimens.	Prerequisites: None. Corequisites: VET150.		Occ	LAB 1.0 3.0 3.0
VET151	Veterinary Anatomy and Physiology II		Focuses on unique anatomic structures and physiological processes which are clinically important in veterinary medicine. Anatomical and physiological bases of clinic procedures, animal disease processes, and veterinary treatments.	Prerequisites: A grade of C or better in VET150 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0
VET200	Veterinary Clinical Pathology Methods		Fundamental studies of laboratory techniques and procedures involved in evaluating veterinary clinical samples. Includes hematology, urinalysis, hemostasis, blood biochemistry and enzymology, serology, cytology, and parasitology. The veterinary technician's role in sample collection, sample storage and handling, and performance of analytic procedures. Use of laboratory equipment, laboratory safety and management, and quality control.	Prerequisites: A grade of C or better in BIO205 or permission of Instructor. Corequisites: VET223		Occ	LEC 2.0 2.0 2.0 LAB 0.0 3.0 3.0
VET201	Animal Care Skills III		Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology classes. Students expand their animal care knowledge, skills and abilities to include skills needed to be successful in clinical internships.	Prerequisites: None. Corequisites: VET210 and VET240 and admission to the Veterinary Technology program.	VET201 may be repeated for a total of four (4) credit hours.	Occ	LAB 2.0 2.0 0.0
VET210	Animal Nursing II		Instruction in and hands-on application of techniques of veterinary nursing care, patient	Prerequisites: A grade of C or better in (VET112 and		Occ	LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			assessment, equipment operation, diagnostic sample collection, and medical treatment. Physical examination, clinical nutrition, and reproductive management of the dog and cat. Operation of E.C.G. and anesthetic machine. Fluid therapy, wound therapy, and bandaging. Surgical instruments and packs. Common diagnostic and therapeutic procedures on animals.	VET151) or permission of Instructor.			
VET220	Veterinary Pharmacology for the Veterinary Technician		Actions and uses of pharmacological agents used in veterinary medicine; drug classifications, modes of action, indications and contraindications, routes of administration, and mechanisms of elimination. Dispensing and pharmacy management, and laws regulating controlled substances. Solving medical math problems and calculating drug doses.	Prerequisites: A grade of C or better in VET101 and VET151. Corequisites: VET223.		Occ	LEC 3.0 3.0 3.0
VET223	Animal Diseases		Study of common infectious, parasitic, metabolic, immunologic, and degenerative diseases of domestic animals. Infectious disease transmission, mechanisms of disease, the host-parasite relationship, and host responses to disease agents. Clinical signs and management of common diseases. Life cycles of common parasites. Principles of disease prevention, environmental management, vaccination, and zoonosis. Diagnostic techniques including	Prerequisites: A grade of C or better in VET151. BIO205 recommended.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			gross and microscopic identification of common animal pathogens.				
VET230	Veterinary Radiology and Imaging for the Veterinary Technician		Veterinary and radiographic terminology, radiation and electrical protection, technical principles, radiographic equipment operation - manual and digital, and radiographic duties of the Veterinary Technician. Introduction to ultrasound, MRI, CAT scans, and other non-traditional imaging uses and techniques. Lab allows for practical application of theories and radiographic positioning as taught in lecture.	Prerequisites: A grade of C or better in (VET150 and VET150LL) or permission of Instructor.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0
VET235	Veterinary Technician Proficiency		Review of pertinent subject matter in preparation for the Arizona State Veterinary Technician Examination and the Veterinary Technician National Examination. Guided review and discussion of exam application process. Review of student's Veterinary Technology Student Essential and Recommended Skills to ensure completion for graduation as required by the American Veterinary Medical Association. May include field trips or guest lecturers.	Prerequisites: A grade of C or better in VET210, VET220, and VET223. Corequisites: VET240.		Occ	L+L 2.0 2.0 2.0
VET240	Veterinary Anesthesia, Surgery, and Emergency Nursing		Veterinary surgical nursing skills associated with aseptic technique and proper protocol in the surgery suite. Pre and post-op monitoring, record keeping, and client education skills. Procedures and techniques with intravenous and inhalation anesthetics,	Prerequisites: A grade of C or better in VET210 and VET220.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 4.0 4.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			surgical asepsis, skin preparation, instrument sterilization techniques and monitoring veterinary patients for vital signs.				
VET250AA	Veterinary Technician Internship		Provides Veterinary Technology program students with off-campus clinical experience in a small animal general veterinary practice. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list.	Prerequisites: A grade of C or better in VET112, VET132, and VET151.		Occ	LAB 0.5 0.5 0.0
VET250AB	Veterinary Technician Internship		Provides Veterinary Technology program students with off-campus clinical experience in a large animal general veterinary practice. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or	Prerequisites: A grade of C or better in VET250AA.		Occ	LAB 0.5 0.5 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list.				
VET250AC	Veterinary Technician Internship		Provides Veterinary Technology program students with off-campus clinical experience in an emergency veterinary clinic and in a veterinary specialty practice. The internship hours will be split equally between the emergency clinic and the specialty practice. Specialty practices may include surgery, ophthalmology, internal medicine, dentistry, dermatology, radiology, exotics, zoo, research, and others. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list.	Prerequisites: A grade of C or better in VET250AB or permission of Instructor.		Occ	LAB 0.5 0.5 0.0
VET250AD	Veterinary Technician Internship		Continuing practical application and mastery of knowledge, skills, and abilities in the selected clinical setting. Exposure to practice philosophies, methodologies, and real-life situations requiring	Prerequisites: A grade of C or better in VET250AC or permission of Instructor.	VET250AD allows the last-semester Veterinary Technology Program student to	Occ	LAB 0.5 0.5 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list.		elect to repeat the off-campus clinical experience of either VET250AA, VET250AB, or VET250AC, depending upon their career interest.		
WAC101	Writing Across the Curriculum		Expressive, expository, and academic writing experiences to develop students' rhetoric and composition foundation. Experience planning and drafting multi-paragraph essays through a writing process with emphasis on essay and paragraph structure and the elements of sentence structure. Participation in writing workshop, group work, reading to support writing tasks, and writing from sources. A minimum of three multi-paragraph essays and a final reflection paper.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
WED105	Minimizing Workplace Stress		Introduction of the application of Practical Relaxation Techniques for reducing workplace stress. Defines the characteristics, process and signs of worplace stress. Includes discussions of the physiology of stress and how these responses impact daily living. Use of the biofeedback instruments to monitor the relaxation techniques such as self-hypnosis, visualization, guided imagery, and meditation	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5
WED106	Cardiopulmonary Resuscitation (CPR)/Automated		Basic overview of Cardiopulmonary Resuscitation (CPR) and Automated External	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
	External Defibrillator (AED)		Defibrillator (AED). Covers choking procedures and the importance, guidelines, and techniques for performing CPR and utilizing an AED.				
WED107	Community First Aid		Basic first aid course for the layperson. Training with the assessments and skills that be performed with minimal equipment in common home or workplace emergencies until emergency medical personnel arrive.	Prerequisites: None.		Occ	L+L 0.5 0.5 0.5
WED120	Massage Therapy: Anatomy Refresher - Upper Body		This course is designed for individuals in the field of massage therapy and provides a review of upper body musculature affecting the neck, shoulder, spine, elbow and wrist joints. Origins and insertions and resistive stretches included.	Prerequisites: None.	WED120 may be repeated for a total of six (6) credit hours.	Occ	L+L 1.0 1.0 1.0
WED125	Reiki: Healing and Symbols		Introduction to Reiki as a Japanese technique for stress reduction and relaxation that also promotes healing. Instruction in the Usui method of Reiki and its symbols and applications to personal health and everyday life.	Prerequisites: None.	WED125 may be repeated for a total of ten (10) credits.	Occ	L+L 2.0 2.0 2.0
WED126	Cupping Therapy		Introduction to cupping therapy for individuals in the field of massage therapy. In addition but not limited to the history, techniques and application in various therapeutic settings.	Prerequisites: None.	WED126 may be repeated for credit.	Occ	L+L 1.0 1.0 1.0
WED145	Reflexology		History and application of specific pressure points on the hands and feet that have correlation to different body organs and systems. Practice of micromovement techniques with the goal of creating a response throughout the body.	Prerequisites: None.	WED145 may be repeated for a total of six (6) credit hours.	Occ	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
WED151	Introduction to Alternative Medicine		Definition of health; exploration of mind-body-spirit connection in health; various therapeutic modalities; identification of strengths and limitations of alternative therapies. Also includes development of ability to critically review written material in the alternative therapy area	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
WED152	Comparative Healing Techniques		Comparative approaches to healing, including allopathy, homeopathy, chiropractic, osteopathy, Chinese medicine, Ayurveda, Shamanism, and therapeutic touch. Contrast explanations for causation of disease, diagnostic procedures, and healing methodology.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
WED154	First Aid/Cardiopulmonary Resuscitation		Cardiopulmonary Resuscitation (CPR) and first aid for the adult, child and infant patients includes Automated External Defibrillator (AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
WED155	Introduction to Chinese Medicine		Basic theories, principles, and methods that constitute the backbone of Chinese Medicine. Explores concepts of Yin, Yang, the Five Elements (Wood, Fire, Earth, Metal, and Water), and the Five Vital substances (Qi, Blood, Body Fluids, Jing, and Shen). Overview of the physiology of the major internal organs (Five Zang and Six Fu) with a	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			focus on their various interrelationships.				
WED162	Meditation and Wellness		Physiology of meditation and its effects on physical and mental health; scholastic abilities and interpersonal relationships; differentiation between meditation and other relaxation techniques.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
WED165	Overview of Massage Therapy		History of massage; overview of bodywork systems; benefits and indications of massage; legal requirements for practice in Arizona	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
WED166	Overview of FELDENKRAIS (R) Awareness Through Movement (R)		Movement activity lessons which are verbally directed, exploratory in nature, designed to clarify the full range of possibility for human movement and action. Self-paced lessons in a noncompetitive environment.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
WED170	Principles of Homeopathy		Origins of homeopathy; key concepts; perceptions of disease; schools of homeopathy; scientific studies; preparation of remedies; case taking	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
WED172	Overview of Herbal Remedies		History and evolution of herbs for healing applications. Preparation, usage, and effects of certain herbs used for healing purposes. Basic literature review skills in the area of herbal medicine	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
WED174	Myofascial Release		Introduction to myofascial release techniques and application. Myofascial Release (MFR) is a therapeutic modality that allows restricted fascia to release from a tightened state. MFR improves nerve	Prerequisites: None.	WED174 may be repeated for credit. Counts as 13.3 continuing education units (CEUs).	Occ	L+L 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			conductivity and circulation of blood and lymph, which allows the healing powers of the body to flow to restricted tissues. The result is relief from chronic pain and the potential for healing injured tissue.				
WED176	Flower Essences		Healing properties of Bach flower remedies; Bach's development of remedies and his philosophy of healing; use and preparation of a variety of flower essences	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
WED181	Essential Oil Properties and Formulations		Focuses on the benefits of individual plant oils, profiling past to present day uses and documented properties; experiential evaluation of the oils; how to formulate topical blends; oil substitution using less expensive oils; hands-on learning.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
WED182	Health Conditions and Popular Herbs		In-depth look at some of today's most popular herbs and their relationship to specific health conditions. Emphasis on research skills in relation to popular herbs. Includes the effects, uses, and application strategies of herbs.	Prerequisites: None. WED172 suggested but not required.		Occ	LEC 2.0 2.0 2.0
WED183	Introduction to Ayurvedic Principles		Introduction to Ayurveda: "the science of life"; a complete system of balancing the body, mind and spirit, originating from ancient India. Introduction to foundational Ayurvedic principles, health philosophy and self assessment of basic constitution. Application of basic health and self care practices such as food selection and preparation, exercise and movement, renewal	Prerequisites: None.	WED183 may be repeated for a total of six (6) credits.	Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and restoration activities, environmental influences to promote health and well-being.				
WED185	Overview of Movement Therapy Systems		Definition of health, exploration of mind-body-spirit connection in health, various therapeutic modalities, identification of strengths and limitation of movement based therapies. Also includes development of ability to critically review written material in the physical or movement therapy area.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
WED195	Special Topic in Wellness Education		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195 may be repeated for credit.	Occ	LEC 0.5 0.5 0.5
WED195AA	Special Topics in Wellness Education A		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195AA may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
WED195AB	Special Topics in Wellness Education A		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. Focuses on a variety of techniques and strategies to promote wellness.	Prerequisites: None.	WED195AB may be repeated for credit.	Occ	L+L 1.0 1.0 1.0
WED195AC	Special Topics in Wellness Education A		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. Focuses on a variety of techniques and strategies to promote wellness.	Prerequisites: None.	WED195AC may be repeated for credit.	Occ	L+L 2.0 2.0 2.0
WED195AD	Special Topics in Wellness Education A		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. Focuses on a variety of techniques and	Prerequisites: None.	WED195AD may be repeated for credit.	Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			strategies to promote wellness.				
WED195BA	Special Topics in Wellness Education B		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195BA may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
WED195BB	Special Topics in Wellness Education B		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195BB may be repeated for credit.	Occ	L+L 1.0 1.0 1.0
WED195BC	Special Topics in Wellness Education B		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195BC may be repeated for credit.	Occ	L+L 2.0 2.0 2.0
WED195BD	Special Topics in Wellness Education B		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195BD may be repeated for credit.	Occ	L+L 3.0 3.0 3.0
WED195CA	Special Topics in Wellness Education C		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195CA may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
WED195CB	Special Topics in Wellness Education C		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195CB may be repeated for credit.	Occ	L+L 1.0 1.0 1.0
WED195C C	Special Topics in Wellness Education C		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195C C may be repeated for credit.	Occ	L+L 2.0 2.0 2.0
WED195C D	Special Topics in Wellness Education C		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195C D may be repeated for credit.	Occ	L+L 3.0 3.0 3.0
WED204	Establishing a Massage Practice		Explore career options in therapeutic massage, including state licensing requirements, and determine how to lay the groundwork for a	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			successful massage practice				
WED210	Sports Massage		Purpose, benefits, and contraindications of sports massage; principles of sports physiology; massage techniques, applications, and procedures; treatment of injuries.	Prerequisites: A grade of C or better in WED165 and WED230 or permission of Program Director.		Occ	L+L 2.0 3.0 3.0
WED215	Self-Care for Health Care Providers		Emphasis on mind-body methods for personal wellness through integration of physical, emotional, social, and spiritual dimensions of being. Development of a personal practice to achieve and sustain a balanced program to support personal health and well being	Prerequisites: None.		Occ	L+L 2.0 5.0 5.0
WED218	Aromatherapy		Physiology of aromatherapy; methods of use; preparation of oils; uses in sports, beauty care, massage, child care, health care, at work, and in the home	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
WED220	Gentle Touch for Individuals Living with Cancer		Introduction to the gentle-touch approach to massage for individuals who are living with or have survived cancer. Overview of cancer and principal cancer treatments. Clinical considerations, including practice guidelines and hands-on adjustments related to cancer and treatment side effects. Administrative considerations for client intake, treatment plans and session documentation. In addition, comprehensive practical application of massage.	Prerequisites: None.	Previous training in Swedish strokes and massage draping required. WED220 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 2.0 2.0
WED225	Reiki: Master Level and Teacher Training		Advanced Usui method of Reiki, including but not limited to the preparation for placement of symbols, hand movements and	Prerequisites: A grade of C or better in WED125 or permission of	WED225 may be repeated for a total of eight (8) credits.	Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			attunements. Exploration of the four pillars of Reiki and 4th Reiki symbol and strategies for instruction, relationships and classroom management.	Department or Division.	WED225 requires an approved field experience.		
WED230	Therapeutic Massage Practices I		Principles of professionalism, ethics, and legalities. Includes use of terminology related to massage therapy. Applications, indications, and contraindications of the nine strokes of Swedish massage. Study of the human osseous and muscular structure. Emphasis on normal movement patterns, origins, insertions, and functions of the muscular system	Acceptance into the Therapeutic Massage program or permission of Program Director.		Occ	L+L 6.0 9.0 9.0
WED231	Therapeutic Massage Practices II		Refined application of the nine strokes of Swedish massage and contraindications to avoid. Application of advanced principles and techniques of trigger point therapy, muscle energy technique, stretching, hydrotherapy protocols, hot and cold applications, reflexology, and corporate massage. Study of the human osseous and muscular structure. Emphasis on normal movement patterns and the origin, insertion, and function of the muscular system	Prerequisites: A grade of C or better in WED230.		Occ	L+L 6.0 9.0 9.0
WED232	Therapeutic Massage Practices III		Refinement and integration of technical skills, psychosocial competencies, and role identity. Exploration of techniques to assess and facilitate range of motion and function; purpose, benefits, indications, and contraindications of therapeutic massage for	Prerequisites: A grade of C or better in WED231. Corequisites: WED250 or permission of Program Director.		Occ	L+L 6.0 10.0 10.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			specific neuro-musculoskeletal disorders/injury and special populations. Application of massage techniques with therapists pre- and post-client evaluations of the client. Adaptation of massage techniques for special populations.				
WED250	Clinical Practicum		Application of fundamental massage techniques.	Prerequisites: A grade of C or better in WED231. Corequisites: WED232 and permission of Program Director.		Occ	LAB 3.0 6.0 0.0
WED250AA	Clinical Practicum: Part I		Application of fundamental massage techniques.	Prerequisites: A grade of C or better in WED231. Corequisites: WED232 and permission of Program Director.		Occ	LAB 1.5 3.0 0.0
WED250AB	Clinical Practicum: Part II		Continued application of fundamental massage techniques.	Prerequisites: A grade of C or better in WED250AA.		Occ	LAB 1.5 3.0 0.0
WED257	Kinetic Meditation		Focuses on posture, body movement, and energy centered meditations. In depth discussion of Chinese Chi Kung exercises and Chi Meditation. Reviews influence of Taoist and Buddhist philosophies on Chi Kung practice and stress management. Explores Kinetic Meditations, and scientific research into health benefits of Chi Kung practice.	Prerequisites: A grade of C or better in WED151, WED162, PED101DD and (PED101VR or PED101YJ) or permission of Department or Division.		Occ	L+L 2.0 2.0 2.0
WED258	Auditory Meditation		Focuses on the East Indian Yogic (Siddha) and Ayurvedic (Transcendental) meditation traditions and use of mantras, sounds and music in meditation.	Prerequisites: A grade of C or better in WED257 or Corequisites: WED257 or permission of		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Discussion of the Vedanta System of Philosophy and the Bhagavad Gita. Explores the history and popularity of auditory meditations, and scientific research into the health benefits of Transcendental Meditation (TM) and other auditory meditations.	Department or Division.			
WED259	Visual Meditation		Focuses on the use of physical objects and mental images as the focal point for meditation. Focuses on the standing and sitting meditation of the Egyptian and West African traditions and the pantheon of images used to represent life's day-to-day processes. Includes discussion of Egyptian and Yoruba philosophy and the use of natural and artistic items, special words or symbols, religious allegories, and graphic images as focal points for meditation.	Prerequisites: A grade of C or better in WED257 and WED258 or Corequisites: WED257 and WED258 or permission of Department or Division.		Occ	L+L 2.0 2.0 2.0
WED275	Practicum: Teaching Healing, Meditation and Stress Management		Application, teaching, and training of fundamental healing meditation and stress management techniques.	Prerequisites: A grade of C or better in WED259 and permission of Instructor.		Occ	LAB 3.0 15.0 0.0
WED282AA	Service-Learning Experience in Wellness Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	WED282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
WED282AB	Service-Learning Experience in Wellness Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	WED282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0
WED282AC	Service-Learning Experience in Wellness Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	WED282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 3.0 3.0 0.0
WED297AA	Special Topics: Therapeutic Massage		Explores a special topic related to therapeutic massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0
WED297AB	Special Topics: Therapeutic Massage		Explores a special topic related to therapeutic massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0
WED297AC	Special Topics: Therapeutic Massage		Explores a special topic related to therapeutic massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0
WED298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
WED298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
WED298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
WFR110	Re-Entry Skills: Personal Skill Development		Personal skill development necessary for transition from incarceration to community. Includes development of a personal value system and decision-making strategies as well as conflict management. Also covers time and money management, goal setting, and the basics for everyday life	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
WFR112	Re-Entry Skills: Family Reunification		Reunification procedures for the incarcerated person's effective transition. Includes building and maintaining self- esteem and effective communication for healthy families or support systems. Also covers family and networking culture, discipline, and expectations for release	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
WFR114	Re-entry Skills: Social Skill Development		Social skill development for the incarcerated person preparing to re-enter society. Includes identifying and establishing boundaries as well as modeling these behaviors. Also covers identification of core emotions and development of positive character traits	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
WFR116	Re-Entry Skills: Substance Abuse Education		Substance abuse education for incarcerated persons. Includes warning signs and the "chain of events" to addiction. Also covers decision making skills as well as strategies and resources available for prevention	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0
WFR118	Re-Entry Skills: Job Readiness		Preparing the incarcerated person for release into the working world. Includes education, skills assessment, and work experience. Also covers	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			job search skills such as resume writing, applications, and interviewing				
WFR120	Re-Entry Skills: Job Retention		Job retention procedures and techniques for incarcerated persons in transition. Includes workplace protocol, job performance, and employer-employee interaction. Also covers stress management and communication skills as well as interpersonal relationships in the workplace	Prerequisites: Permission of Department or Division.		Occ	LEC 2.0 2.0 2.0
WKO298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
WKO298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			development. COMMON COMPETENCY COURSE				
WKO298A C	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
WLD100	Basic Welding		Shop procedures, safety and personal protection. Grinders, drill presses, and saws. Resistance and oxyacetylene welders. Arc welders: alternating current (AC) and direct current (DC) modes, electrodes, positioning and securing	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0
WLD101	Introduction to Welding		Introduction to safe operation of shop equipment and common joining and thermal cutting processes used in the welding industry. It is designed to provide a brief exposure to the SMAW, GMAW, FCAW, GTAW, OFW, OFC, PAC processes while developing incremental hands-on skills through sequenced lab experiences.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0
WLD102	Basic Welding Metal Sculpture		Practical training for welders in artistic welding and metal sculpter with emphasis on oxy-ace welding, arc welding, and metal inert gas (MIG) welding.	Prerequisites: None.	WLD102 may be repeated for a total of one hundred fifty (150)	Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					credit hours.		
WLD103	Basic Blacksmithing and Metal Shaping		Selection and safe use of blacksmithing and metal shaping tools and equipment. Material selection and conditioning, practical forging techniques, metal shaping experience, and finishing processes.	Prerequisites: None.	WLD103 may be repeated for a total of one hundred fifty (150) credit hours.	Occ	L+L 3.0 8.0 8.0
WLD106	Arc Welding		Electric welding with emphasis on metallic arc welding in out-of-position practice and procedures	Prerequisites: None.		Occ	L+L 5.0 8.0 8.0
WLD106AA	Introduction to SMAW		Introduction to arc welding with emphasis in Shielded Metal Arc Welding (SMAW). Designed to provide the knowledge and skills needed to cut and prepare weld joints utilizing current technology. Develops hands-on skills through sequenced lab experiences.	Prerequisites: None.		Occ	L+L 5.0 8.0 8.0
WLD106AB	SMAW 6010 Plate		Continued training in shielded metal arc welding (SMAW) with emphasis on using E6010 (fast-freeze) electrodes in all joint positions. Focus is on fillet welds for structural steel and open root groove weld joints.	Prerequisites: A grade of C or better in WLD106AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0
WLD106AC	SMAW 7018 Plate		Continued training in shielded metal arc welding (SMAW) with emphasis on using E7018 (low hydrogen) electrodes in all joint positions. Focus is on fillet welds and groove weld joints with backing to prepare students for welding code certification testing.	Prerequisites: A grade of C or better in WLD106AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0
WLD106AD	SMAW Introduction to Pipe		Advanced training in shielded metal arc welding (SMAW) with emphasis on pipe welding using E6010	Prerequisites: A grade of C or better in WLD106AA		Occ	L+L 5.0 8.0 8.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and E7018 electrodes in various pipe joint positions (1G, 2G, 5G, 6G). Focus is on the open root groove pipe weld joints to prepare students for industry code certification.	or permission of Instructor.			
WLD131	Ferrous Metals		Use of ferrous metals, specification of ferrous metals, use of identification and study of welding industry standards	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
WLD150	Welding Blueprint Reading		Analysis and interpretation of technical drawings common to the metal fabrication and construction trades. Welding blueprint symbols.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0
WLD201	Advanced Welding Concepts		Further study of electric arc and oxyacetylene welding with emphasis on GTAW (heliarc) and GMAW (mig) processes to weld both ferrous and nonferrous metal.	Prerequisites: A grade of C or better in WLD101.		Occ	L+L 3.0 6.0 6.0
WLD202	Construction Welding III		Metal arc welding processes, blueprint and weld symbol reading, joint layout preparation and welding procedures, gas-tungsten arc welding with related instruction in practice on ferrous and nonferrous metals	Prerequisites: Permission of Instructor.		Occ	L+L 3.0 5.0 5.0
WLD203	Welding Certification Preparation		Emphasis on the weld certification process including the Welding Procedure Qualification Record (WPQR), Welder Performance Qualification Test Record (WPQTR), and the Weld Procedure Specification (WPS) in Shielded Metal Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW), or Gas Metal Arc Welding (GMAW) welding processes.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
WLD206	Advanced Welding - Heliarc and Wire Feed		Instruction in theory and practice on tungsten inert gas and wire feed welding. Welding procedures on ferrous and nonferrous metals. Set up and operation of all types of machines used in tig and mig welding	Prerequisites: A grade of C or better in WLD106 or permission of Department or Division.		Occ	L+L 5.0 8.0 8.0
WLD206AA	Introduction to GMAW/FCAW and GTAW		Instruction in theory and practice of gas metal arc welding (GMAW, commonly referred to as MIG), flux cored arc welding (FCAW), and gas tungsten arc welding (GTAW, commonly referred to as TIG). Basic welding procedures on ferrous and nonferrous metals. Setup and operation of welding process equipment. Covers selection of proper filler materials and shielding gas options.	Prerequisites: A grade of C or better required in WLD106AA or permission of Instructor or Corequisites: WLD106AA.		Occ	L+L 5.0 8.0 8.0
WLD206AB	Advanced GMAW and FCAW		Instruction and practice of gas metal arc welding (GMAW) and flux cored arc welding (FCAW) in the horizontal, vertical, and overhead positions. Prepare for industry code performance qualification plate tests with both welding processes.	Prerequisites: A grade of C or better in WLD206AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0
WLD206AC	Advanced GTAW Non-Ferrous		Instruction and practice of gas tungsten arc welding (GTAW) aluminum sheet in the flat, horizontal, and vertical positions. Prepare for industry code performance qualification tests in any welding position.	Prerequisites: A grade of C or better in WLD206AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0
WLD206AD	Advanced GTAW Ferrous		Instruction and practice of gas tungsten arc welding (GTAW) carbon and stainless-steel in any position. Prepare for industry code performance	Prerequisites: A grade of C or better in WLD206AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			qualification tests in any welding position.				
WLD208	Advanced Arc Welding - Certification		Advanced metallic arc welding emphasizing out-of-position welding in preparation for certification. Includes various test methods. Provides training on machine flame cutting and gouging and arc air cutting and gouging	Prerequisites: A grade of C or better in WLD106 or permission of Instructor.		Occ	L+L 5.0 8.0 8.0
WLD208AA	SMAW Code Welding		Advanced training in shielded metal arc welding (SMAW) to achieve successful welder performance qualification testing in any position. Focus is on single v-groove weld joints per industry codes and specification requirements.	Prerequisites: A grade of C or better in WLD106AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0
WLD208AB	GMAW Code Welding		Advanced training in gas metal arc welding (GMAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WLD206AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0
WLD208AC	FCAW Code Welding		Advanced training in flux cored arc welding (FCAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WLD206AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0
WLD208AD	SMAW Code Welding Pipe		Advanced training in pipe welding using either shielded metal arc welding (SMAW), gas metal arc welding (GMAW), or flux cored arc welding (FCAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WLD106AD or WLD208AA, or permission of Instructor.		Occ	L+L 5.0 8.0 8.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
WLD214	American Welding Society Certification Preparation		Principles and techniques of electric arc welding and American Welding Society (AWS) certification requirements, certification pretest and preparation. Technical theory and skill training in all position welding processes.	Prerequisites: A grade of C or better in (WLD101 and registered apprenticeship status) or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
WLD215	Welding Fabrication		Introduction to layout, basic welding, and fabrication. Introduction to the basic skills of measuring, equipment setup and cutting, shaping, grinding, welding, filing, and heating and bending of metal parts.	Prerequisites: WLD101, or WLD106++, or WLD206++, or Apprentice status, or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 6.0 6.0
WLD215AA	Weld Fabrication I for Millwrighting		Layout, fabrication and basic skills of measuring, cutting, shaping, grinding, drilling and tapping, welding, filing, shimming, heating and bending of metal parts. Safe and proper use of all necessary hand and power tools.	Prerequisites: Permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
WLD215AB	Weld Fabrication II for Millwrighting		Welding layout and fabrication. Advanced skills in measuring, cutting, shaping, grinding, drilling and tapping, welding, filing, shimming, heating and bending of metal parts. Safe and proper use of all necessary hand and power tools.	Prerequisites: A grade of C or better in (WLD215AA and registered apprenticeship status) or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0
WLD225	Welding Inspection and Quality Control		Welding inspection and quality control standards and practices in the construction and fabrication industries. Welding inspector certification requirements and	Prerequisites: A grade of C or better in WLD106++ or permission of Instructor.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			functions performed in industry.				
WLD296W A	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0
WLD296W B	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify		Occ	LAB 2.0 10.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
WLD296W C	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0
WLD296W D	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 4.0 20.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.			
WLD298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
WLD298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
WLD298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0
WRT100	Introduction to Water Resources		Fundamental principles of water resources. Basic concepts and strategies in the study of water, the current focus on water pollution and water purification. Topics include ground water, surface water, water quality, water purification, and water pollution. Presentation of ongoing studies related to work of earth scientists.	Prerequisites: Admission to the Water Resources Technology program and placement into MAT120, MAT121, MAT122, MAT150, MAT151, MAT152, or higher-level mathematics course for which College Algebra is a		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
				prerequisite or permission of the Program Director.			
WRT102	Water Resources Computations and Data Analysis		Fundamentals of water resources technology formulas for real-world problems. Discussion of best practices in water resources given the results of the calculations.	Prerequisites: Math assessment score on District placement exam placing students into MAT090 or MAT091 or MAT092 or higher level mathematics course.		Occ	LEC 3.0 3.0 3.0
WRT108	Fundamentals of Environmental Science Technology		This course provides fundamental concepts and problem-solving methods that address environmental conditions, pollution monitoring and prevention, and approaches for protecting air, land and water using technology.	Prerequisites: Admission into the Water Resources Technology program. Corequisites: WRT100 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
WRT110	Principles of Water Treatment Plant Operations		Principles in the safe and effective operation and maintenance of drinking water treatment plants, reservoir management and intake structuring. The source of water, basic water laboratory test procedures and calculations also covered.	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT100 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
WRT115	Water Technology Calculations		Application of water technology formulas for operation and maintenance of water/wastewater plants and distribution and collections systems. Includes operator	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			examination preparation and discussion of best practices in water technologies given the results of the calculations.	Technology program. Prerequisites or Corequisites: WRT100 or permission of Program Director.			
WRT117	Geographic Information Systems (GIS)		Purpose and applications of desktop Geographic Information Systems (GIS) technology applied to water resources and planning. ArcView software program applications and data management. Includes data query and spatial data functions. Analysis of spatial relationships and presentation of spatial information.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in BPC110, or CIS105, or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
WRT121	Operation of Wastewater Treatment Plants		Safe and effective operation and maintenance of wastewater treatment plants. Overview of treatment processes and laboratory testing used in wastewater treatment plants. Principles and processes involved in waste treatment ponds, disinfection and chlorination process.	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT100 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
WRT125	Surveying for Water Resources		Fundamental surveying principles utilized in water field studies. Level and transit, horizontal measurement by tape or stadia. Benchmark and profile leveling traverse surveys and computations and establishment of line and grade.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 or permission of Program Director).		Occ	LEC 2.0 2.0 2.0
WRT130	Groundwater Hydrology		Fundamentals of groundwater resources.	Prerequisites: Admission		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Includes basic flow equations, well hydraulics, groundwater fluctuations, artificial recharge and basic-data collection techniques. Emphasis on the use of data in analysis of local and regional flow systems.	into the Water Resources Technology program and (a grade of C or better in WRT100 or permission of Program Director).			
WRT130LL	Groundwater Field Techniques		Field exercises to acquire groundwater data and service data-gathering equipment. Safety procedures stressed.	Prerequisites: A grade of C or better in WRT130 or Corequisites: WRT130 or permission of Department or Division.		Occ	LAB 1.0 3.0 3.0
WRT131	Wastewater Collection Systems Operation and Maintenance		Overview of wastewater collection systems with an emphasis on inspection and cleaning of sewer systems. Safety considerations, maintenance and underground repair procedures also covered.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 and WRT115, or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
WRT134	Water Distribution System Operation and Maintenance		Safe and effective operation and maintenance of water distribution systems. Water contaminants, disinfection and chlorination in addition to development of a plant safety plan.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 and WRT115, or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
WRT140	Water Quality for Treatment Industry		Introduction to water quality including common parameters in the treatment industry, regulations, and types and methods of monitoring. Laboratory safety, sampling and	Prerequisites: Admission to the Water Resources Technology program. Prerequisites: A grade of C		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			reporting, wet analytical methods, sample analyses, and process chemistry.	or better in WRT100 or Corequisites: WRT100 or permission of the Program Director.			
WRT140LL	Water Quality for Treatment Industry Laboratory		Laboratory safety, sampling and reporting; wet analytical methods; sample analyses; process chemistry.	Prerequisites: A grade of C or better in WRT140 or Corequisites: WRT140 or permission of Department or Division.		Occ	LAB 1.0 3.0 3.0
WRT150	Introduction to Surface Water Data Collection		Fundamentals of surface water data collection while stressing safe practices. Map reading and navigation, field inspections, accessing, collecting, recording and retrieving surface water data.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
WRT150LL	Introduction to Surface Water Data Collection Field Techniques		Hands-on experience in surface water data collection while stressing safe practices. Map reading and navigation, field inspections, accessing, collecting, and recording surface water data.	Prerequisites: A grade of C or better in WRT150 or Corequisites: WRT150 or permission of Department or Division.		Occ	L+L 2.0 3.0 3.0
WRT152	Water Resources Field Investigations I: Groundwater and Surface Water		Hands-on experience and field exercises to acquire surface water and groundwater data and service data-gathering equipment. Hands-on experience in surface water data collection while stressing safe practices. Map reading and navigation, field inspections, accessing, collecting, and recording surface water and groundwater data. Safety procedures stressed.	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT130 and WRT150, or permission of Program Director.		Occ	L+L 3.0 6.0 6.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
WRT153	Environmental Law and Regulations		Introduction to various environmental laws and fundamentals of environmental laws relating to federal, state, and local levels. Overview and application of the permitting processes related to drinking and wastewater designed to provide a better sense of real-world issues from a regulator and regulated standpoint.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT108 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0
WRT180	Environmental Sampling and Analysis		Introduction to the theory and methodology of sampling and analysis of environmentally significant parameters in water, wastewater, hazardous waste, soil, sediment, and air.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 and WRT108, or permission of Program Director).		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0
WRT190AA	Water Resources Technologies Seminar		Interaction with other students and professionals in the water resources technologies industry. Stress placed on sharing knowledge and demonstrating understanding through discussion of current issues in the industry, operational tasks, and emerging issues.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0
WRT200	Industrial Pretreatment		Principles of industrial pretreatment programs. Overview of industrial facilities inspections and pollution prevention strategies. Sampling techniques of industrial wastewaters. Field exercises to acquire industrial wastewater quality data and industrial discharge flow measurements. Quality Assurance/Quality	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT100 or		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			Control (QA/QC), and data processing techniques included. Safety procedures stressed.	permission of Program Director.			
WRT204	Water/Wastewater Mechanical Systems, Power, and Instrumentation		Maintenance of facilities and equipment in both water and wastewater systems. Principles of basic electricity, electrical circuits, motors, transformers, and process control instrumentation.	Prerequisites: Admission to the Water Resources Technology program and permission of the Program Director.		Occ	LEC 3.0 3.0 3.0
WRT205	Power and Instrumentation		Principles of basic electricity, electrical circuits, motors, transformers, and process control instrumentation.	Prerequisites: A grade of C or better in WRT110 or WRT121 or WRT131 or WRT134.		Occ	LEC 3.0 3.0 3.0
WRT207	Groundwater Production and Management		Basic hydrology and hydrogeology; construction of water wells from site selection and specifications through drilling, design, development, testing, and equipping; rehabilitation of existing wells, Arizona Groundwater Management Law of 1980; water quality; common operational problems of well fields; types and purposes of monitoring wells.	Prerequisites: A grade of C or better in WRT100 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0
WRT221	Water and Wastewater Treatment Plants Administration		Administration safety and maintenance of a water and wastewater treatment plants. Handling and disposal of process wastes and instrumentation use. Emphasis on reporting data in reports, graphs, and record keeping.	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT110 or WRT121 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
WRT240	Water Quality		Fundamental chemical and physical factors involved in evaluating water quality. Water quality deterioration from land fills, underground storage tanks, and hazardous waste. Sampling techniques of groundwater, soil, and surface water. Quality assurance, quality control, and data processing techniques included.	Prerequisites: A grade of C or better in WRT140, or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0
WRT240LL	Water Quality Field Techniques		Field exercises to acquire water quality data and service data gathering equipment. Safety procedures stressed.	Prerequisites: A grade of C or better in WRT240 or Corequisites: WRT240 or permission of Department or Division.		Occ	LAB 1.0 3.0 3.0
WRT252	Water Resources Field Investigations II: Surveying and Surface Water		Field reconnaissance of water resources. Lab experiences in surveying techniques and procedures. Field exercises to acquire surface water data and develop hydrologic models. Safety procedures stressed.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT152 or permission of Program Director).		Occ	L+L 3.0 6.0 6.0
WRT270AA	Water Resources Internship		Water resources work experience in business, industry, or government. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.		Occ	LAB 1.0 6.0 0.0
WRT270AB	Water Resources Internship		Water resources work experience in business, industry, or government. Eighty (80) hours of designated work per credit [total of one hundred sixty (160) hours].	Prerequisites: Permission of Department or Division.		Occ	LAB 2.0 12.0 0.0
WRT270AC	Water Resources Internship		Water resources work experience in business, industry, or government. Eighty (80) hours of designated work per	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 18.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			credit [total of two hundred forty (240) hours].				
WRT298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0
WRT298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0
WRT298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE				
WST100	Introduction to Women's and Gender Studies		Introduction to critical issues in women's studies.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
WST105	Women of Color in the Americas		Interdisciplinary, multi-perspective, and comparative study of the experiences of Women of Color in the Americas and their impact on the arts, literature, social structures and political movements. Examines how the intersection of race, class, gender, and sexuality has shaped their lived experiences and legacy.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
WST120	Gender, Class and Race		A feminist discussion of gender, class and race as basic and central social categories that determine how we see ourselves and others and how they circumscribe our opportunities and privileges in American society.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C]	Acad	LEC 3.0 3.0 3.0
WST128	Law and Violence Against Women		Covers cases and materials on systems of oppression particularly as related to women in our society. Areas covered include battering, sexual	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			harassment, sexual assault, prostitution, and pornography as exemplified in present-day society. Designed to give students the ability to identify problems of violence against women and participate in current societal discourse on various ways to resolve them.				
WST160	Women and the Early American Experience		Introduction to American women's history, from the colonial period to suffrage in 1920, based on a feminist perspective.	Prerequisites: None.	Course Attribute(s): General Education Designation : Historical Awareness - [H]	Acad	LEC 3.0 3.0 3.0
WST161	American Women Since 1920		Continuation of the history of women in America from 1920 to the present, based on a feminist perspective. Includes discussion of the roles and status of immigrant and ethnic minority women	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Historical Awareness - [H] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
WST200	Essential Feminist Writing		Literary tracing of feminism from 18th century to present. Explores major issues related to women in the 20th century	Prerequisites: A grade of C or better in ENG101 or permission of Instructor.	General Education Designation : General Education Designation : Historical Awareness - [H]	Acad	LEC 3.0 3.0 3.0
WST206	La Mujer		Analysis and discussion of critical issues for Latinas in America today	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
WST207	Black Women	AFR207	Analysis and discussion of critical issues for Black women in America today	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
WST209	Women and Films	HUM209	Analysis of images of women in films from both historical and contemporary perspectives	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
WST244	Women in Muslim Societies		Overview of Muslim women's religious and secular roles and rights. Relationship of the Qur'an and Hadiths' teachings on women to the interpretations of those teachings within the variegated cultural contexts of Islam	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
WST261	Indigenous Women's Literature of the Americas	AIS/ENH2 61	Explores contemporary voices of Indigenous women authors and artists in the Americas as expressed in poetry, fiction, nonfiction, drama, and oral traditions. Focuses on themes relevant to Indigenous women and examines the trends and movements within Indigenous peoples and women's literary history. Examines themes relevant to Indigenous women such as racial and gender oppression, reservation life, acculturation, and their sociopolitical activism in the Americas.	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0
WST282AA	Volunteerism for Women's Studies: A Service Learning Experience		Service learning field experience within private/public agencies and citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience.	Prerequisites: A grade of C or better in WST100 and permission of Instructor.	WST282AA may be repeated for a total of six (6) WST282 credit hours. Standard grading	Acad	LAB 1.0 1.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
					available according to procedures outlined in catalog.		
WST282AB	Volunteerism for Women's Studies: A Service Learning Experience		Service learning field experience within private/public agencies and citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience.	Prerequisites: A grade of C or better in WST100 and permission of Instructor.	WST282AB may be repeated for a total of six (6) WST282 credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0
WST282AC	Volunteerism for Women's Studies: A Service Learning Experience		Service learning field experience within private/public agencies and citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience.	Prerequisites: A grade of C or better in WST100 and permission of Instructor.	WST282AC may be repeated for a total of six (6) WST282 credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0
WST284	19th Century Women Writers	ENH284	Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
WST285	Contemporary Women Writers	ENH285	Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about	Prerequisites: None.	Course Attribute(s): General Education Designation	Acad	LEC 3.0 3.0 3.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background		: Cultural Diversity - [C] General Education Designation : Humanities, Arts and Design - [HU]		
WST286	Women and Health: Body/Mind/Spirit/Con-nection		Economic, sociopolitical, and demographic factors affecting women's health. Methods for optimizing physical, emotional, and spiritual health. Specific health concerns of women throughout the lifespan. Activism for health promotion	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
WST290	Women and World Religions	REL290	Focus on the role of women in several organized religions and/or religious sects. Study of myth and symbols as they are used to establish, maintain, and enforce sex-roles within specific cultural contexts around the world.	Prerequisites: None.	Course Attribute(s): General Education Designation : Global Awareness - [G] General Education Designation : Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0
WST292	Goddess Religions	REL292	Introduction to Goddess religions from pre-historic to modern times. Focuses on ancient origins, myths and practices of religions with female deities, their historical replacement by male religious deities, and their modern re-emergence in neo-Goddess movements.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
WST295	Women's Studies Seminar		Special topics in women, gender, and sexuality studies with an emphasis on current issues not covered in other Women's Studies (WST) courses.	Prerequisites: None.	WST295 may be repeated for a total of six (6) credit hours.	Acad	LEC 1.0 1.0 1.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
WST298AA	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0
WST298AB	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0
WST298AC	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			to maximize student development.				
WTO106AA	Introduction to SMAW		Introduction to arc welding with emphasis in Shielded Metal Arc Welding (SMAW). Designed to provide the knowledge and skills needed to cut and prepare weld joints utilizing current technology. Develops hands-on skills through sequenced lab experiences.	Prerequisites: None.		CLK	180
WTO106AB	SMAW 6010 Plate		Continued training in shielded metal arc welding with emphasis on using E6010 (fast-freeze) electrodes in all joint positions. Focus is on fillet welds for structural steel and open root groove weld joints.	Prerequisites: A grade of C or better in WTO106AA or permission of Instructor.		CLK	180
WTO106AC	SMAW 7018 Plate		Continued training in shielded metal arc welding with emphasis on using E7018 (low hydrogen) electrodes in all joint positions. Focus is on fillet welds and groove weld joints with backing to prepare students for welding code certification testing.	Prerequisites: A grade of C or better in WTO106AA or permission of Instructor.		CLK	180
WTO106AD	SMAW Introduction to Pipe		Advanced training in shielded metal arc welding with emphasis on pipe welding using E6010 and E7018 electrodes in various pipe joint positions (1G, 2G, 5G, 6G). Focus is on the open root groove pipe weld joints to prepare students for industry code certification.	Prerequisites: A grade of C or better in WTO106AA or permission of Instructor.		CLK	180
WTO206AA	Introduction to GMAW/FCAW and GTAW		Instruction in theory and practice of gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), commonly referred to as MIG and TIG. Basic welding procedures on ferrous	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: WTO106AA		CLK	141

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			and nonferrous metals. Setup and operation of welding process equipment. Covers selection of proper filler materials and shielding gas options.	or permission of Instructor.			
WTO206AB	Advanced GMAW and FCAW		Instruction and practice of gas metal arc welding (GMAW) and flux cored arc welding (FCAW) in the horizontal, vertical, and overhead positions. Prepare for industry code performance qualification plate tests with both welding processes.	Prerequisites: A grade of C or better in WTO206AA or permission of Instructor.		CLK	165
WTO206AC	Advanced GTAW Non-Ferrous		Instruction and practice of gas tungsten arc welding (GTAW) aluminum sheet in the flat, horizontal, and vertical positions. Prepare for industry code performance qualification tests in any welding position.	Prerequisites: A grade of C or better in WTO206AA or permission of Instructor.		CLK	180
WTO206AD	Advanced GTAW Ferrous		Instruction and practice of gas tungsten arc welding (GTAW) carbon and stainless-steel in any position. Prepare for industry code performance qualification tests in any welding position.	Prerequisites: A grade of C or better in WTO206AA or permission of Instructor.		CLK	180
WTO206DA	Introduction to GMAW/FCAW and GTAW		Instruction in theory and practice of gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), commonly referred to as MIG and TIG. Basic welding procedures on ferrous and nonferrous metals. Setup and operation of welding process equipment. Covers selection of proper filler materials and shielding gas options.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: WTO106AA or permission of Instructor.		CLK	180
WTO206DB	Advanced GMAW and FCAW		Instruction and practice of gas metal arc welding (GMAW) and flux cored arc welding (FCAW) in	Prerequisites: A grade of C or better in WTO206AA		CLK	180

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			the horizontal, vertical, and overhead positions. Prepare for industry code performance qualification plate tests with both welding processes.	or permission of Instructor.			
WTO208AA	SMAW Code Welding		Advanced training in shielded metal arc welding (SMAW) to achieve successful welder performance qualification testing in any position. Focus is on single v-groove weld joints per industry codes and specification requirements.	Prerequisites: A grade of C or better in WTO106AA or permission of Instructor.		CLK	180
WTO208AB	GMAW Code Welding		Advanced training in gas metal arc welding (GMAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WTO206AA or permission of Instructor.		CLK	165
WTO208AD	SMAW Code Welding Pipe		Advanced training in pipe welding using either shielded metal arc welding (SMAW), gas metal arc welding (GMAW), or flux cored arc welding (FCAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WTO106AD or WTO208AA or permission of Instructor.		CLK	180
WTO208AE	GTAW Code Welding		Advanced training in welding using gas tungsten arc welding (GTAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: None.		CLK	180
WTO208DB	GMAW Code Welding		Advanced training in gas metal arc welding (GMAW) with emphasis on achieving successful welder performance	Prerequisites: A grade of C or better in WTO206AA		CLK	180

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			qualification testing in any position. Focus is on groove weld joints per industry codes.	or permission of Instructor.			
YAQ100	Yaqui Indian History and Culture		Surveys Yaqui Indian history and culture from pre-contact to the present. Explores themes of resistance, dispersion, survival, tradition, family, community, belief systems, and identity. Places Yaqui history within the context of Arizona, American Indian, Mexican, and Mexican-American History. Examines historical writing and analysis, life histories, poetry, language, and emphasis on Yaqui experiences in 20th century Arizona.	Prerequisites: None.	Course Attribute(s): General Education Designation : Cultural Diversity - [C] General Education Designation : Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0
YAQ110	Yaqui Language and Culture		Introduction to the Yaqui language and overview of the traditional culture as a background for language use. Instruction in the grammar and writing system to assist student in speaking, reading, and writing Yaqui	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0
YOG101	Beginning Yoga		Yoga practice at the beginning level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: None.	YOG101 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
YOG101PA	Beginning Yoga		Yoga practice at the beginning level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: None.	YOG101PA does not meet the requirements for CCL Yoga Instruction Program. YOG101PA may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
YOG102	Intermediate Yoga		Yoga practice at the intermediate level, including poses	Prerequisites: None. Prior experience	YOG102 may be	Occ	L+L 1.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			(asanas), breathing, meditation and relaxation techniques.	recommende d.	repeated for credit.		
YOG102PA	Intermediate Yoga		Yoga practice at the intermediate level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: None. Prior experience recommende d.	YOG102PA does not meet requirement s for CCL Yoga Instruction Program. YOG102PA may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
YOG130	Yoga and the Body		In-depth study of how the human body functions during yoga both theoretically and practically. Attention given to correct body alignment and mechanics while performing yoga, exploring essential areas of the body individually and analyzing the body as a whole.	Prerequisites: None. YOG101, or YOG102, or YOG201 recommende d.		Occ	L+L 2.0 2.0 2.0
YOG150	Tradition and Practice of Yoga I		Introduction to the art and science of yoga, including terminology, concepts, issues, trends and health benefits. Explores the history and philosophy of yoga and the teaching of yoga as a career.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0
YOG170	Teaching Yoga: Level I		Methods of teaching yoga. Studies assessment techniques, establishing course goals, and organizing the classroom. Reviews yoga instruction techniques and how these differ from other movement-based activities; application of anatomical knowledge and practice teaching experiences.	Prerequisites: None. Corequisites: YOG101, or YOG102, or YOG201, or permission of Instructor.		Occ	L+L 2.0 2.0 2.0
YOG171	Teaching Yoga: Level II		Emphasizes practice teaching experiences. Reviews instructional methods and techniques for assessing student	Prerequisites: A grade of C or better in YOG170 or permission of		Occ	L+L 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			skill levels, organizing the classroom and writing lesson plans. Application of anatomical knowledge to build movement skills, improvement of observational skills and development of an individual teaching style.	instructor. Corequisites: YOG101, or YOG102, or YOG201, or permission of Instructor.			
YOG172	Teaching Yoga: Level III		Instructional methods for teaching more advanced asanas. Principles of alignment of back bending, inversion, forward bending and arm balancing asanas and techniques for identifying and correcting misalignments. Emphasis on instructional techniques that safely build yoga movement skills while encouraging progression in the practice of challenging asanas.	Prerequisites: A grade of C or better in YOG171 or permission of Instructor. Corequisites: YOG101, or YOG102, or YOG201, or permission of Instructor.		Occ	L+L 2.0 2.0 2.0
YOG201	Advanced Yoga		Yoga practice at the advanced level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: A grade of C or better in PED102YO, or PED103YO, or YOG102, or YOG102PA, or permission of Instructor.	YOG201 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0
YOG201PA	Advanced Yoga		Yoga practice at the advanced level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: A grade of C or better in PED102YO, or PED103YO, or YOG102, or YOG102PA, or permission of Instructor.	YOG201PA does not meet requirements for CCL Yoga Instruction Program. YOG201PA may be repeated for credit.	Occ	L+L 0.5 1.0 1.0
YOG250	Tradition and Practice of Yoga II		Examination of the art and science of yoga. Explores the history and philosophy of yoga. In-depth review of significant literature	Prerequisites: A grade of C or better in YOG150.		Occ	LEC 2.0 2.0 2.0

Course	Course Title	Cross Refer-ences	Description	Requisite	Course Note	Sub-ject Type	Credits Periods Load
			associated with the yoga tradition. Examines cultural aspects of yoga, relevance of yoga to modern day life and health benefits of yoga.				
YOG274	Teaching Yoga: Practicum		Guided, practical experience in teaching yoga students. Requires implementation of lesson plans, application of individual teaching techniques and analysis of teaching sessions.	Prerequisites: A grade of C or better in YOG172 or permission of Instructor.		Occ	L+L 2.0 3.0 3.0

Common Pages

Catalog Common Pages 2023-2024

MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT

- 2.2.1 Admission Policy AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- 2.2.2 Admission Information AMENDED through the Administrative Regulation Approval Process, June 12, 2023, Housekeeping Change, July 10, 2023;
- 2.2.3 Other Admission Information TECHNICAL CHANGE, July 11, 2023;
- 2.2.4 Transfer Credit and Prior Learning Assessment Policy AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- 2.2.6 Academic Advising and New Student Orientation AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- 2.2.10 Refund Policy AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- 2.2.13 University Transfer AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- 2.3.1 Academic Load TECHNICAL CHANGE, July 11, 2023;
- 2.3.2 Attendance TECHNICAL CHANGE, June 23, 2023;
- 2.3.3 Grading AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- 2.3.4 Academic Standing, Warning, and Probation AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- 2.3.6 Withdrawal AMENDED through the Administrative Regulation Approval Process, June 12, 2023, TECHNICAL CHANGE, July 11, 2023;
- 2.3.7 Academic Renewal (Academic Second Chance) AMENDED through the Administrative Regulation Approval Process, June 12, 2023, TECHNICAL CHANGE, July 11, 2023;
- 2.3.8 Honors - Opportunities & Recognition AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- 2.3.9 General Graduation Requirements AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- 2.3.13 Course Substitutions AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- 2.8.1 Eligibility for Accommodations & Required Disability Documentation AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- Appendix ND-2 Discrimination Complaint Procedures for Students AMENDED through the Administrative Regulation Approval Process, June 12, 2023;
- Appendix S-5 Student Financial Assistance AMENDED through the Administrative Regulation Approval Process, June 12, 2023, TECHNICAL CHANGE, July 11, 2023;
- Appendix S-7 Withdrawal Procedures AMENDED through the Administrative Regulation Approval Process, June 12, 2023

The following are a portion of the Administrative Regulations used in managing the day-to-day operations of the Maricopa County Community College District (MCCCD) and are subject to change. Administrative Regulations are amended, adopted, or deleted as necessary and are subject to a formal approval process. Administrative Regulations are referenced by number, which corresponds with the regulations on the MCCCD web site:

<https://district.maricopa.edu/regulations>

Some regulations include reference to Arizona Revised Statutes from the State of Arizona and are noted as “ARS” followed by a reference number.

2.4.1 General Statement

The Maricopa Community Colleges are dedicated to providing a healthy, comfortable and educationally productive environment for students, employees and visitors.

2.4.2 Nondiscrimination (see [5.1.1 Maricopa EEO Policy](#))

It is the policy of the Maricopa County Community College District (MCCCD), (consisting of [Chandler-Gilbert Community College](#), the District Office, [Estrella Mountain Community College](#), [GateWay Community College](#), [GateWay Community College - Central City](#), [Glendale Community College](#), [Mesa Community College](#), [Paradise Valley Community](#)

College, Phoenix College, Rio Salado Community College, Scottsdale Community College, South Mountain Community College, and all affiliated locations) to:

1. Recruit, hire, and promote in all job groups, and to ensure that all Human Resources (HR) employment selection and decision practices do not discriminate, nor tolerate discrimination in employment against any applicant or employee, on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information.
2. Administer all HR employment selection and decision practices pertaining to advertising, benefits, compensation, discipline (including probation, suspension, and/or involuntary termination for cause or layoff), employee facilities, performance evaluation, recruitment, social/recreational programs, and training will be administered without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information.
3. Hold each level of management responsible for ensuring that all employment policies, procedures, and activities are in full compliance with all applicable federal, state, and local EEO statutes, rules, and regulations.
4. Maintain an educational environment that does not discriminate or tolerate discrimination on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, or veteran status in federally funded programs, activities and MCCCCD sponsored events.
5. Hold each level of academic and student life management responsible for ensuring that all academic environments and activities are in full compliance with all applicable federal, state, and local non-discrimination laws.

AMENDED by Direct Approval from the Chancellor Approval, April 8, 2020

AMENDED through the Administrative Regulations Approval Process, January 2, 2020

2.4.3 Equal Opportunity Statement (see [5.1.3 EEO Policy Statement](#))

It is the policy of the Maricopa County Community College District (MCCCCD) to promote equal employment opportunities through a positive continuing program. This means that Maricopa will not discriminate, nor tolerate discrimination in employment or education, against any applicant, employee, or student because of race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information. Additionally, it is the policy of Maricopa to provide an environment for each Maricopa job applicant and employee that is free from sexual harassment, as well as harassment and intimidation on account of an individual's race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information.

In addition, lack of English language skills is not a barrier to admission into Career and Technical Education (CTE) programs or skill centers.

AMENDED by Direct Approval from the Chancellor, April 8, 2020

AMENDED through the Administrative Regulations Approval Process, January 2, 2020

AFFIRMATIVE ACTION STATEMENTS

Affirmative Action Policy Statement for Individuals with Disabilities

In conformance with the provisions of Section 503 of the Rehabilitation Act of 1973, as amended, and the implementing regulations, 41 CFR 60-741.5 (a), as amended, Maricopa County Community College District (MCCCCD) will not discriminate, nor tolerate discrimination in employment or education, against any applicant, employee, or student because of physical or mental disability in regard to any position for which the known applicant or employee is qualified. MCCCCD agrees to take affirmative action to employ, advance in employment, and otherwise treat known qualified individuals with disabilities without regard to their physical or mental disability in all human resources selection and decision practices, such as the following: advertising, benefits, compensation, discipline (including probation, suspension, and/or termination for cause or layoff), employee facilities, performance evaluation, recruitment, social/recreational programs, and training. MCCCCD will also continue to administer these practices without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status or genetic information. Additionally, all applicants and employees are protected

from coercion, intimidation, interference, or discrimination for filing a complaint or assisting in an investigation under the Act.

Affirmative Action Policy Statement for Other Eligible Veterans, Special Disabled Veterans, and Vietnam Era Veterans

In conformance with the Vietnam Era Veterans Readjustment Assistance Act of 1974, the Veterans Employment Opportunities Act of 1998, and the implementing regulations, 41 CFR 60-250 (k), Maricopa County Community College District (MCCCD) will not discriminate, nor tolerate discrimination in employment or education, against any applicant, employee, or student because they are a special disabled veteran or Vietnam era veteran in regard to any position for which the known applicant or employee is qualified. MCCCD agrees to take affirmative action to employ, advance in employment, and otherwise treat known qualified special disabled veterans and Vietnam era veterans without discrimination based upon their disabled or veteran status in all human resources selection and decision practices, such as the following: advertising, benefits, compensation, discipline (including probation, suspension, and/or termination for cause or layoff), employee facilities, performance evaluation, recruitment, social/recreational programs, and training. MCCCD will continue to administer these practices without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status or genetic information. Additionally, MCCCD agrees to post all suitable job openings at the local office of the State employment service where the job opening occurs. This includes full-time, temporary greater than 3 days' duration, and part-time employment. Finally, all applicants and employees are protected from coercion, intimidation, interference, or discrimination for filing a complaint or assisting in an investigation under the Act.

Notice of Americans with Disabilities Act (ADA)/ Section 504 of the Rehabilitation Act/Title IX Coordinator (see [5.1.7 Notice of Americans with Disabilities Act \(ADA\)/Section 504 of the Rehabilitation Act/Title IX Coordinator](#))

Under the ADA and Section 504, the Maricopa County Community College District (MCCCD) recognizes the obligation to provide overall program accessibility throughout its locations for qualified disabled individuals. Students and employees can raise concerns or make complaints, without retaliation, about matters made unlawful under the ADA.

EMPLOYEES

The District Office and each College must post the address and telephone number for the individual responsible for coordinating services and/or activities relating to the Americans with Disabilities Act (42 U.S.C. Chapter 126), Section 504 of the Rehabilitation Act (29 U.S.C. §794(d)), and all other applicable law. The Notice will specify how employees can request reasonable accommodations.

[College ADA Coordinators](#) (Credentials are needed to enter secure site.)

STUDENTS

The District Office and each MCCCD location must post the address and telephone number for the individual responsible for coordinating services and/or activities relating to the Americans with Disabilities Act (42 U.S.C. Chapter 126), Section 504 of the Rehabilitation Act (29 U.S.C. §794(d)), and Title IX of the Education Amendments of 1972 (20 U.S.C. §1681), using the format below:

- ADA/504/Title IX Coordinator
- Address
- Phone #
- Email address

Additionally, each college/center must publish electronically or in print the above information in student handbooks and catalogs.

The designated ADA/504/Title IX Coordinator at each college/center will provide information as to the existence and location of services, activities, and facilities that are accessible to and usable by individuals with disabilities. Likewise, under Title IX, there is an obligation to provide services and program accessibility in a gender-neutral manner.

[Title IX Coordinators](#)

[ADA/504 Managers](#)

AMENDED through the Administrative Regulations Approval Process, January 2, 2020

Governing Values (Board Policy 4.1)

Our Vision: A Community of Colleges—Colleges for the Community—working collectively and responsibly to meet the life-long learning needs of our diverse students and communities.

Our Mission: The Maricopa Community Colleges provide access to higher education for diverse students and communities. We focus on learning through:

University Transfer Education
General Education
Developmental Education
Workforce Development
Student Development Services
Continuing Education
Community Education
Civic Responsibility
Global Engagement

Our Institutional Values: The Maricopa Community Colleges are committed to:

Community

We value all people—our students, our employees, their families, and the communities in which they live and work. We value our global community of which we are an integral part.

Excellence

We value excellence and encourage our internal and external communities to strive for their academic, professional and personal best.

Honesty and Integrity

We value academic and personal honesty and integrity and believe these elements are essential in our learning environment. We strive to treat each other with respect, civility and fairness.

Inclusiveness

We value inclusiveness and respect for one another. We believe that team work is critical, that each team member is important; and we depend on each other to accomplish our mission.

Innovation

We value and embrace an innovative and risk-taking approach so that we remain at the forefront of global educational excellence.

Learning

We value lifelong learning opportunities that respond to the needs of our communities and are accessible, affordable, and of the highest quality. We encourage dialogue and the freedom to have an open exchange of ideas for the common good.

Responsibility

We value responsibility and believe that we are each accountable for our personal and professional actions. We are responsible for making our learning experiences significant and meaningful.

Stewardship

We value stewardship and honor the trust placed in us by the community. We are accountable to our communities for the efficient and effective use of resources as we prepare our students for their role as productive world citizens.

ADMISSION, REGISTRATION AND ENROLLMENT

2.1 General Regulation

1. General Statement

Compliance with Policies, Rules and Regulations

Every student is expected to know and comply with all current published policies, rules and regulations as stated in the college catalog, class schedule, and/or student handbook. Documents are available on each college's website.

Policies, courses, programs, fees and requirements may be suspended, deleted, restricted, supplemented or changed through action of the Governing Board of the Maricopa Community Colleges.

The Maricopa Community Colleges reserve the right to change, without notice, any materials, information, curriculum, requirements and regulations.

Note: The regulations that comprise the student section contain language that appears in various sources such as the Catalog Common Pages and the Student Handbook. All areas became Administrative Regulations with the 1996 adoption of the Governance Model. Changes are made annually either through the Administrative Regulations approval process, or by Board approval for those items that fall under its statutory duty, such as Tuition and Fees. In an effort to prevent duplication, topics in this section may be incorporated by reference, as they are featured in other areas of the manual and are noted accordingly.

The Maricopa County Community College District Vision, Mission and Values that are featured in the Common Pages are a part of approved Governing Board policy and are located in the policy section of the manual. As such, the following statement related to Outcomes Assessment that appears in the Common Pages is presented here as a general statement.

2. Outcomes Assessment

The mission of the Maricopa Community Colleges is "to create and continuously improve affordable, accessible, and effective learning environments for the lifelong educational needs of the diverse communities we serve." In order to evaluate how successfully the Maricopa County Community College District accomplishes this mission, student outcomes will be assessed as part of the continuous improvement process.

Students may be asked to participate in a variety of assessment activities at each college. Assessment results will be used to improve educational programs, services and student learning.

2.2.1 Admission Policy

Persons meeting the admissions criteria may attend any Maricopa Community College of their choice. Falsification of any admission materials or official college records may be cause for denial or cancellation of admission. Exceptions to the admissions policies may be requested through the Admissions and Standards Committee. Admission is determined in accordance with state law (ARS §§15-1805.01 and 15-1821) and regulations of the Maricopa Community Colleges Governing Board.

Admission Classifications

1. Admission of Regular Students

Admission to the community college in Arizona may be granted to any person who meets at least one of the following criteria:

- A. Is a graduate of a high school, which is accredited by a regional accrediting association as defined by the United States Office of Education or approved by a State Department of Education or other appropriate state educational agency.
- B. Has a high school certificate of equivalency.
- C. Is at least 18 years of age and demonstrates evidence of potential success in the community college.
- D. Is a transfer student in good standing from another college or university.

2. Admission of Students Under 18 Years of Age

- A. A community college in this state shall grant admission to any student who is under eighteen years of age and who achieves at least one of the following:
 - i. A composite score of 720 or more on the Preliminary Scholastic Aptitude Test (PSAT).

- ii. A composite score of 720 or more on the Scholastic Aptitude Test (SAT).
 - iii. A composite score of twelve or more on the American College Test (ACT).
 - iv. A passing score on the relevant portions of the statewide assessment.
 - v. The completion of a college placement method designated by the community college district that indicates the student is at the appropriate college level for the course.
 - vi. Is a graduate of a private or public high school or has a high school certificate of equivalency.
- B. A community college may limit the number of semester hours in which the student may enroll to not more than six (6) credit hours.
 - C. Home schooled students are exempt from this sub-section.
 - D. Students who enroll in vocational courses may be admitted on an individual basis with the approval of college officials if the student meets the established requirements of the courses for which the student enrolls and the college official determines that the student's admission is in the best interest of the student.

3. Specialized Vocational / Training Program

Students who enroll in vocational courses may be admitted on an individual basis with the approval of college officials if the student meets the established requirements of the courses for which the student enrolls and the college officials determine that the student's admission is in the best interest of the student.

4. Western Undergraduate Exchange Program

The Western Undergraduate Exchange (WUE) program is a student exchange program coordinated by the Western Interstate Commission for Higher Education (WICHE) and administered by the Arizona Board of Regents. Through WUE, students who reside in western states (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming), Guam and the Commonwealth of the Northern Marianas Islands (CNMI) and who meet the eligibility requirements, pay 150 percent of the regular resident tuition plus fees. Students must mark prominently on the Student Information Form that they seek admission as WUE students. Students may not apply as out-of-state students and expect to receive the WUE tuition rate after admitted. Once admitted as WUE students, students may not petition for in-state residency. Further information may be obtained from the Admissions and Records Office/Office of Student Enrollment Services.

5. Admission of F-1 Nonimmigrant Students

Prospective students should contact the Admissions and Records Office/Office of Student Enrollment Services or designated office for the international student application form(s) or apply online at www.maricopa.edu/become-a-student/international-admissions. When completed, the form(s) should be submitted to the Admissions and Records Office/Office of Student Enrollment Services or the International Education office with all requested supporting documents. After the file has been reviewed, a notice will be sent to the applicant indicating either acceptance or denial of admission.

To be guaranteed consideration for admission, all application materials must be received by July 1 for the fall semester and November 1 for the spring semester.

Prospective students seeking admission based on F-1 nonimmigrant status must provide proof of secondary school completion with documentation comparable to a United States high school diploma or higher degree. It is recommended that F-1 nonimmigrant students have graduated in the upper 50% of their secondary school (high school or equivalent) in order to ensure success in academic classes at this college. Applicants for admission to the college must have high school and college (if applicable) transcripts sent directly from the high school or college to the Admissions and Records Office/Office of Student Enrollment Services or designated office. In addition, it is the applicant's responsibility to have all transcripts translated into English and evaluated by a foreign credential evaluation service if necessary.

A. Admission to Academic Programs

Applicants who wish to enroll in an academic program at the college must present evidence of English language proficiency. If the Test of English as a Foreign Language (TOEFL) is used to satisfy this requirement, the applicant must attain a score of at least 500 (on the paper-based TOEFL) or 61 (on the internet-based TOEFL, known as the iBT). Some colleges may have a higher minimum score requirement for admission to specific academic programs. Students should contact their respective college for its English language proficiency requirements. If the International Language Testing System (IELTS) is used to satisfy this requirement, an IELTS overall Band Score of

5.5 or better is required, and a minimum IELTS individual Band Score of 5.0 on each module is recommended. The Dean or Director of the Admissions and Records Office/Office of Student Enrollment Services or designee of the college may accept other proof of English language proficiency for admission purposes; including, but not limited to, the ACCUPLACER, ASSET, COMPASS and CELSA TESTS.

B. Admission to an Intensive English Program

Applicants for admission to an Intensive English Program are advised to check with individual colleges for their respective admission requirements. Applicants must provide evidence of at least an intermediate command of English by way of one or more of the following criteria:

- i. At least six years of English language instruction as shown by the applicant’s school transcript(s);
- ii. A minimum TOEFL score of 400 (on the paper-based TOEFL) or 23 (on the internet-based test);
- iii. An original letter of recommendation from a teacher, school principal or headmaster/ headmistress, or the director of an English language institute attesting to the applicant’s proficiency at the intermediate level;
- iv. Other credentials, test scores, interview results, or evidence accepted by the coordinator of an intensive English program or the college’s responsible designee. Students admitted to an Intensive English Program will not be allowed to enroll in courses outside those officially designated as part of the program unless and until they have met all of the prerequisites or other course requirements.
- v. Foreign students under certain types of visas may need special permission to enroll and should contact the appropriate college official.

C. Financial Support

Evidence of financial support will be required prior to issuance of the I-20 form. The colleges have no scholarship or financial aid provisions for foreign students; therefore, students must be fully prepared to meet the necessary financial obligations for the full time they will be in the United States. The colleges estimate a student’s average expenses for 10 months to be:

Tuition and Fees	\$9, 115 (1)
Living Expenses	\$17, 200 (2)
Books	\$1,104 (3)
Health Insurance	\$2,800 (4)
Total	\$30, 219 (5)

D. Dependent Financial Guarantee

Evidence of financial support for dependents of F-1 and M-1 students (spouse and dependent children) is also required: \$5,000 for the first dependent and \$2,500 for each additional dependent.

E. Health Insurance

All F-1 and M-1 students who have an I-20 issued by one of the Maricopa Community Colleges are required to purchase the Maricopa Community Colleges’ international student health insurance plan. Health insurance coverage for dependents of F-1 and M-1 students is highly recommended. The Maricopa Community Colleges contracts with an insurance provider annually to offer a health insurance plan for F-1 and M-1 students. For more information contact the college Admissions and Records Office/Office of Student Enrollment Services or designated international student office.

Footnotes:

(1) Based on 2023-2024 tuition and fee schedule.

(2) Based on estimated living expenses for two (2) semesters (10 months).

(3) Based on average new and used textbook prices and Rental Rates. Assumes books are sold at the end of the semester.

(4) Based on the estimated 2023-2024 insurance premiums for the mandatory Maricopa Community Colleges’ International Student Health Plan.

(5) Applicants must provide evidence of this minimum amount of financial support before an I-20 is issued.

AMENDED through the Administrative Regulations Approval Process, June 12, 2023

AMENDED through the Administrative Regulation Approval Process, May 24, 2022

AMENDED by Direct Approval from the Chancellor, June 4, 2019

AMENDED through the Administrative Regulations Approval Process, June 5, 2017

2.2.2 Admission Information

Students must file a Student Information Form, online or in-person, with the Admissions and Records Office/Office of Student Enrollment Services at the college of attendance. There is no charge for this service.

1. Student Classifications

Some financial aid programs have specific criteria based on the student’s classification (grade level). A student's classification does not necessarily correspond to the number of semesters or credits required to complete all degree requirements, as some degree programs require more than the standard 60 for associate’s or 120 for bachelor’s degrees. Classification includes MCCC and accepted transfer credit.

Number Of Credits	Classification	Applies To
0-29	Freshman	Certificates Associate’s Degrees Bachelor’s Degrees
30-59	Sophomore	Certificates Associate’s Degrees Bachelor’s Degree
60+	Sophomore	And Still In Pursuit Of A Certificates Or Associate’s Degrees
60-89	Junior	Bachelor’s Degree
90 Or More	Senior	Bachelor’s Degree

2. Student Identification Number

Disclosure of the social security number is voluntary (ARS §15-1823). However, students must use social security numbers for reporting information pertaining to potential educational tax credits and for processing federal financial aid applications and Veterans Administration benefits.

3. Residency for Tuition Purposes (See [Appendix S-1](#))

All students are classified for tuition purposes under one of the following residency classifications:

- A. Maricopa County resident
- B. Out-of-County resident
- C. Out-of-State resident (including F-1 non-immigrant students and students on other non-immigrant visas)

4. Residency Determination

Residency for tuition purposes is determined in accordance with state law (ARS §15-1801 et seq. and ARS§ 15-1803) and regulations of the Maricopa Community Colleges Governing Board. All of the Maricopa Community Colleges are

subject to the above statutes and regulations. Students who have questions about their residency should contact the Admissions and Records Office/Office of Student Enrollment Services for clarification.

A. Implementation

- i. An applicant must be eligible to attend post-secondary education in the United States prior to being eligible to register for classes and pay fees.
- ii. Domicile status must be established before the student registers and pays fees. It is the student's responsibility to register under the correct domicile status.
- iii. Enforcement of domicile requirements shall be the responsibility of the Chancellor of the Maricopa Community Colleges. The Chancellor has charged the Director of Admissions and Records or other designee at each college to make the initial domicile classification. In determining a student's classification, the college may consider all evidence, written or oral, presented by the student and any other information received from any source which is relevant to determining classification. The college may request written sworn statements or sworn testimony of the student.
- iv. A request for review of the initial classification may be made to a district review committee. The request must be in writing, signed by the student and accompanied by a sworn statement of all facts relevant to the matter. The request must be filed with the admissions officer of the college within ten (10) days of receipt of notification of classification as a non-resident. Failure to properly file a request for review within the prescribed time limit constitutes a waiver of review for the current enrollment period. The decision of the review committee shall be final.

B. Definitions

- i. "Armed forces of the United States" means the Army, the Navy, the Air Force, the Marine Corps, the Coast Guard, the commissioned corps of the United States Public Health Services, the National Oceanographic and Atmospheric Administration, the National Guard, or any military reserve unit of any branch of the armed forces of the United States.
- ii. "Continuous attendance" means enrollment at one of Maricopa Community Colleges as a full-time or part-time student for a normal academic year since the beginning of the period for which continuous attendance is claimed. Students need not attend summer sessions or other such intersession beyond the normal academic year in order to maintain continuous attendance.
- iii. "Maricopa County resident" means an individual who lives in Maricopa County and has lived in the state of Arizona for at least one year prior (365 days) to the first day of the semester (as published in the approved MCCC Academic Calendar posted online at [ACADEMIC CALENDARS](#)) and who is a United States citizen or in a lawful status. In-state residency must be established prior to county residency for those moving from other states. Refer to Section C for guidelines.
- iv. "Domicile" means a person's true, fixed, and permanent home and place of habitation. It is the place where he or she intends to remain and to which he or she expects to return when he or she leaves without intending to establish a new domicile elsewhere. Visa status must confer the ability to establish domicile in the United States in order to be classified as an in-state student.
- v. "Emancipated person" means a person who is neither under a legal duty of service to his parent nor entitled to the support of such parent under the laws of this state.
- vi. "Full-time student" means one who registers for at least twelve (12) credit hours per semester.
- vii. "Part-time student" means one who registers for fewer than twelve (12) credit hours per semester.
- viii. "Parent" means a person's father, or mother, or if one parent has custody, that parent, or if there is no surviving parent or the whereabouts of the parents are unknown, then a guardian of an unemancipated person if there are not circumstances indicating that such guardianship was created primarily for the purpose of conferring the status of an in-state student on such unemancipated person.

C. Criteria for Determining Residency

- i. In-State Student Status
 1. Except as otherwise provided in this article, no person having a domicile elsewhere than in this state is eligible for classification as an in-state student for tuition purposes. (Applicants applying for in-state tuition status may be required to provide supporting documentation for identification and residency classification.)

2. A person is not entitled to classification as an in-state student until the person is domiciled in this state for one year preceding the official starting day of the semester, except that a person whose domicile is in this state is entitled to classification as a Maricopa County resident if the person meets one of the following requirements:
 - a. The person's parent's domicile is in this state and the parent is allowed to claim the person as an exemption for state and federal tax purposes.
 - b. The person is an employee of an employer which transferred the person to this state for employment purposes or the person is the spouse of such an employee.
 - c. The person is an employee of a school District in this state and is under contract to teach on a full-time basis, or is employed as a full-time non-certified classroom aide, at a school within that school District. For purposes of this paragraph, the person is eligible for classification as an in-state student only for courses necessary to complete the requirements for certification by the state board of education to teach in a school District in this state. No member of the person's family is eligible for classification as an in-state student if the person is eligible for classification as an in-state student pursuant to this paragraph, unless the family member is otherwise eligible for classification as an in-state student pursuant to this section. Eligibility for in-state tuition is subject to verification of intent to domicile in this state. Determination of residency is made by the admissions and records office/office of enrollment services.
 - d. The person's spouse (spouse must be in an eligible status to qualify for in-state residency) has established domicile in this state for at least one year and has demonstrated intent and financial independence and is entitled to claim the student as an exemption for state and federal tax purposes or the person's spouse was temporarily out of state for educational purposes, but maintained a domicile in this state. If the person is a non-citizen, the person must be in an eligible visa status pursuant to federal law to classify as an in-state student for tuition purposes.
3. The domicile of an unemancipated person is that of such person's parent.
4. An unemancipated person who remains in this state when such person's parent, who had been domiciled in this state, removes from this state is entitled to classification as an in-state student until attainment of the degree for which currently enrolled, as long as such person maintains continuous attendance.
5. A person who is a member of the armed forces of the United States and who is stationed in this state pursuant to military orders or who is the spouse or a dependent child of a person who is a member of the armed forces of the United States and who is stationed in this state pursuant to military orders is entitled to classification as an in-state student. The student does not lose in-state student classification while in continuous attendance toward the degree for which he or she is currently enrolled.
6. A person who is a member of the armed forces of the United States or the spouse or a dependent of a member of the armed forces of the United States is entitled to classification as an in-state student if the member of the armed forces has claimed this state as the person's state of home record for at least twelve consecutive months before the member of the armed forces, spouse or dependent enrolls in a university under the jurisdiction of the Arizona Board of Regents or a community college under jurisdiction of a community college district governing board. For purposes of this subsection, the requirement that a person be domiciled in this state for one year before enrollment to qualify for in-state student classification does not apply.
7. Immediate classification as an in-state student shall be granted to a veteran who meets the provisions of Arizona statute HB 2091, paragraph G, which reads:
 A person holding an honorable discharge from the uniformed services of the United States from either active duty or reserve or national guard status, or who has retired from active duty or reserve or national guard status, shall be granted immediate classification as an instate student and, while continuously enrolled, does not lose instate student classification if the person has demonstrated objective evidence of intent to be a resident of Arizona that, for the purposes of this section, includes at least one of the following:
 1. Registration to vote in this state.
 2. An Arizona driver license.

3. Arizona motor vehicle registration.
 4. Employment history in Arizona.
 5. Transfer of major banking services to Arizona.
 6. Change of permanent address on all pertinent records.
 7. Other materials of whatever kind or source relevant to domicile or residency status.
8. A student using Chapter 30, 33, or 35 benefits who does not otherwise qualify under item 7 above (paragraph G of PL 2091), or a veteran's dependent or spouse who is using transferred Post-9/11 GI Bill® (Chapter 33) benefits or the Marine Gunnery Sergeant John David Fry Scholarship, will be eligible for immediate classification as an in-state student if they provide the institution a current certificate of eligibility or ebenefits statement showing the student is eligible for Chapter 30, 33, or 35 Veteran Affairs (VA), education benefits and documentation showing the student is residing within the state. Students are required to submit the following:
1. Certificate of eligibility letter or ebenefits statement from the Veteran Affairs (VA) awarding Chapter 30, 33 or 35 benefits or the Fry Scholarship, or the Dept. of Defense document approving the transfer of CH. 33 benefits.
 2. Students must also provide at least one of the following to show presence within the state:
 - A. Registration to vote in this state.
 - B. An Arizona driver license.
 - C. Arizona motor vehicle registration.
 - D. Employment history in Arizona.
 - E. Transfer of major banking services in Arizona.
 - F. Change of permanent address on all pertinent records.
 - G. Other materials of whatever kind or source relevant to domicile or residency status.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill>.

9. Per Arizona state law, a person who is honorably discharged from the armed forces of the United States on either Active Duty or Reserve or National Guard Status, or who has retired from Active Duty or Reserve or National Guard Status, shall be granted immediate classification as an in-state student on honorable discharge from the armed forces and, while in continuous attendance toward the degree for which currently enrolled, does not lose in-state student classification if the person has met the following requirements:
- A. Registered to vote in this state.
 - B. Demonstrated objective evidence of intent to be a resident of Arizona which, for the purposes of this section, include at least one of the following:
 1. An Arizona driver license
 2. Arizona motor vehicle registration
 3. Employment history in Arizona
 4. Transfer of major banking services to Arizona

5. Change of permanent address on all pertinent records

6. Other materials of whatever kind or source relevant to domicile or residency status

10. A student using any VA educational benefits who does not otherwise qualify under items above shall be granted immediate classification as an in-state student, and while continuously enrolled does not lose in-state student classification if the person has demonstrated objective evidence of intent to be a resident of Arizona that for the purposes of this section, includes at least one of the following:

1. Registration to vote in this state
2. An Arizona driver license
3. Arizona motor vehicle registration
4. Employment history in Arizona
5. Transfer of major banking services to Arizona.
6. Change of permanent address on all pertinent records
7. Other material of whatever kind or source relevant to domicile or residency status.

11. A person who is a member of an Indian Tribe recognized by the United States Department of the Interior whose reservation land lies in the state and extends into another state and who is a resident of the reservation is entitled to classification as an in-state student.

ii. Alien In-State Student Status

1. An alien is entitled to classification as an in-state refugee student if such person has been granted refugee status in accordance with all applicable laws of the United States and has met all other requirements for domicile.
2. Notwithstanding any other law, a student, other than a nonimmigrant alien as described in 8 United States Code section 1101(A)(15), who meets both of the following requirements is eligible for in-state tuition at any community college as defined in ARS 15- 1401:

Attended any public or private high school option or homeschool equivalent pursuant to ARS 15-802 while physically present in this state for at least two years.

Graduated from any public or private high school option or homeschool equivalent pursuant to ARS 15-802 while physically present in this state or obtained a high school equivalency diploma in this state.

3. Persons without lawful immigration status are eligible for in-state tuition pursuant to subsection 2 of this section.
4. A student will be assessed out-of-state tuition until such time that documentation of status is received in the Office of Admissions and Records/Enrollment Services and (eligibility for) residency is confirmed. Documentation must be provided prior to the end of the term in which residency classification is being requested. Documentation received after the end of term will be used for residency determination in subsequent terms.
5. In establishing domicile, the alien must not hold a visa that prohibits establishing domicile in the United States and this state. After meeting other domicile requirements, students holding valid, unexpired visas in the following categories may be classified as in-state students (See Appendix S-1A).
6. A student must verify U.S. citizenship, permanent residency, or other lawful immigration status. Lawful immigration status means they have legal authority to be in the United States and also have the authority to go to school while in the United States.

7. Students who hold a current or expired visa and have applied for a change of status will retain their immigration status based on their prior visa status and not the status or visa for which they are applying. Students will need to submit a copy of the new visa card with the updated status. The timeline for establishing domicile begins with the issue date on the current visa that allows for the establishment of residency .
8. Please note: two requirements must be met to qualify for in-state tuition.
 1. A student must meet the domicile residency requirement of residing in the State of Arizona for one year preceding the official start of the semester.
 2. The student must have an immigration status that allows for the establishment of residency for one (1) year.
9. (Applicants applying for in-state tuition status will be required to provide supporting documentation for identification and residency classification.) All applicants for in-state tuition may be required to provide a combination of the following documents:

- An Arizona Driver’s license issued after 1996 or an Arizona non-operating identification license or an Arizona Instruction Permit
- A birth certificate or delayed birth certificate issued in any state, territory, or possession of the United States (A hospital record/certificate IS not acceptable. A certified abstract of birth with the official state seal and/or watermark is acceptable).
- A United States certificate of birth abroad.
- A United States Passport.
- A Foreign Passport with a United States Visa.
- An I-94 Form with a Photograph.
- An appropriately designated United States Citizenship and Immigration Services Employment Authorization (Work Permit) or Refugee Travel Document [as listed on the Employee Authorization Document Chart]. (Additional documents may be required with an employee authorization card.)
- A United States Permanent Resident Card
- A United States Certificate of Naturalization.
- A United States Certification of Citizenship.
- A Tribal Certificate of Indian Blood.
- A Tribal or Bureau of Indian Affairs Affidavit of Birth.

Tribal Members, the Elderly and “Persons with Disabilities or incapacity of the mind or body,” may submit certain types of documents under Section 1903 of the Federal Social Security Act (42 UNITED STATES CODE 1396B, As Amended By Section 6036 Of The Federal Deficit Reduction Act of 2005)**

* A document issued by a federally recognized Indian tribe evidencing membership or enrollment in, or affiliation with, such tribe.

iii. Presumptions Relating to Student Status

Unless there is evidence to the contrary, the registering authority of the community college or university at which a student is registering will presume that:

1. No emancipated person has established a domicile in this state while attending any educational institution in this state as a full-time student, as such status is defined by the community college district governing board or the Arizona Board of Regents, in the absence of a clear demonstration to the contrary.

2. Once established, a domicile is not lost by mere absence unaccompanied by intention to establish a new domicile.
3. A person who has been domiciled in this state immediately before becoming a member of the armed forces of the United States shall not lose in-state status by reason of such person's presence in any other state or country while a member of the armed forces of the United States.

iv. Proof of Residency

When a student's residency is questioned, the following proof will be required.

1. Establishing Domicile

- a. An affidavit signed by the student must be filed with the person responsible for verifying residency.
- b. A combination of the following may be used in determining a student's domicile in Arizona:
 1. Arizona income tax return
 2. Arizona Voter registration
 3. Arizona Motor Vehicle registration
 4. Arizona Driver's license
 5. Employment history in Arizona
 6. Place of graduation from high school
 7. Source of financial support
 8. Dependency as indicated on federal income tax return
 9. Ownership of real property
 10. Notarized statement of landlord and/or employer
 11. Transfer of major banking services to Arizona
 12. Change of permanent address on all pertinent records
 13. Arizona Department of Children Services documents related to foster care placement
 14. Other relevant information

2. County Residency

A combination of the following may be used to determine a student's county residency:

1. Notarized statements of landlord and/or employer
2. Source of financial support
3. Place of graduation from high school
4. Ownership of real property
5. Bank accounts
6. Arizona income tax return
7. Dependency as indicated on a Federal income tax return
8. Other relevant information

- D. Concurrent Enrollment in Arizona Public Institutions of Higher Education (ARS §15-1807) (See [Appendix S-3](#))
 Under Arizona Revised Statutes §15-1807, it is unlawful for any non-resident student to register concurrently in two or more public institutions of higher education in this state including any university, college or community college for a combined student credit hour enrollment of more than six (6) credit hours without payment of non-resident tuition at one of such institutions. Any non-resident student desiring to enroll concurrently in two or more public institutions of higher education in this state including any university or community college for a combined total of more than six (6) credit hours who is not subject to non-resident tuition at any of such institutions shall pay the non-resident tuition at the institution of his choice in an amount equivalent to non-resident tuition at such institution for the combined total of credit hours for which the non-resident student is concurrently enrolled.

HOUSEKEEPING CHANGE, July 10, 2023

AMENDED through the Administrative Regulations Approval Process, June 12, 2023

AMENDED through the Administrative Regulation Approval Process, May 24, 2022

AMENDED through the Administrative Regulation Approval Process, June 24, 2021

AMENDED through the Administrative Regulations Approval Process, June 30, 2020

AMENDED through the Administrative Regulations Approval Process, November 5, 2019

AMENDED by Direct Approval from the Chancellor, September 17, 2018

AMENDED by Direct Approval from the Chancellor, August 30, 2017

AMENDED by Direct Approval from the Chancellor, August 30, 2015

AMENDED by Direct Approval from the Chancellor, May 20, 2015

2.2.3 Other Admission Information

1. Veterans

By Arizona statute, any failing grades from any Arizona university or community college that were received prior to military service will not be used to determine admission to the community college for the honorably discharged veterans with two years' service in the armed forces of the United States. Students admitted or readmitted to the community college under this statute are subject to progression, retention, graduation and other academic regulations and standards. (See [Administrative Regulation 2.3.6 Withdrawal](#))

2. Ability to Benefit

- A. Federal guidelines require that students who are applying for financial aid demonstrate the ability to benefit. Under federal law, a student who enrolls after June 30, 2012, must be a high school graduate, have a GED certificate, or have completed a secondary school education in a home school setting that is treated as a home school or private school under state law, be admitted as a regular student, and be pursuing an eligible degree or certificate to qualify for federal financial assistance under Title IV of the Higher Education Act.
- B. For student enrolled prior to July 1, 2012, an evaluation during the admission process resulted in the student being admitted to the college with the status of Regular, Regular with Provisional Requirements or Special.
- i. "Regular" status, for the purpose of 2.2.3.2, is granted to an individual admitted to the college who is a high school graduate, has a GED certificate, or has completed a secondary school education in a home school setting that is treated as a home school or private school under state law. A student without a high school diploma or GED certification and beyond the age of compulsory high school attendance may be a regular status student if the student has been assessed to benefit from college instruction by receiving qualifying scores on approved assessment instruments. All regular status students must be pursuing a degree/certificate in an eligible program.
 - ii. "Regular with Provisional Requirements" status, for the purpose of 2.2.3.2, is granted to a student admitted to the college who is not a high school graduate, does not have a GED certificate, is beyond the age of compulsory high school attendance, or has completed a secondary school education in a home school setting that is treated as a home school or private school under state law, but has been assessed to benefit from college instruction and is pursuing a degree/certificate in an eligible program.
 - iii. "Special" status, for the purpose of 2.2.3.2, is granted to a student admitted to the college for concurrent enrollment or pursuing one or more courses of special interest and who meets all the requirements for admission.

3. Transcripts

The Maricopa Community Colleges reserve the right to require an official transcript for admission to specific programs, for verification of course requisites and for determination of academic standing. The official transcript must be sent directly from the source institution to the college Admissions and Records Office/Office of Student Enrollment Services. The official transcripts may be sent via a secured website. Please contact the Admissions Office of The Maricopa College you plan to attend to verify which secure websites may be valid.

It is the student's responsibility to ensure that official transcripts have been received and are complete.

Students entering as high school graduates may be required to submit high school transcripts. Please contact the Admissions Office of the Maricopa College you plan to attend for more information on preparing a home-schooled official transcript. Students entering as GED recipients may be required to present a copy of the high school equivalency certificate or official report of qualifying GED scores.

4. Educational Assessment

All students are encouraged to undergo an educational assessment to determine course placement. Prospective students who do not possess a high school diploma or GED equivalence certificate are required to complete an educational assessment to determine their ability to benefit from college instruction. See Student Course Placement Process (AR 2.2.7)

5. High Pressure Recruitment Tactics

The Maricopa County Community College District prohibits its employees from engaging in high-pressure recruitment tactics or in providing to any person or entity engaged in student recruitment, admission activity, or in making decisions regarding the award of Title IV, HEA funds, any commissions, bonuses, or other incentive payments based, in any part, directly or indirectly upon successfully securing enrollments or the awarding of financial aid.(34 CFR 668.14(A)(22)(I)).

TECHNICAL CHANGE, July 11, 2023

AMENDED through the Administrative Regulations Approval Process, October 23, 2019

AMENDED through the Administrative Regulations Approval Process, June 5, 2017

2.2.4 Transfer Credit and Prior Learning Assessment Policy

TRANSFER CREDIT

A student enrolling at one of the Maricopa Community Colleges after having attended other post-secondary institutions can have coursework evaluated for transfer credit. To be eligible for evaluation, coursework must appear on official transcripts from the source institutions. The official transcripts must be mailed or sent through an approved electronic transfer method directly from the source institutions to the Admissions and Records/Enrollment Services Office of the receiving institutions. Hand-carried and emailed transcripts cannot be accepted for an official evaluation. Students should allow approximately 10 days before confirming with your Maricopa Community College that the transcript(s) was received. The Admissions and Records/Enrollment Services office at the receiving institutions will complete course-by-course evaluations for all submitted transcripts upon student request. The award of transfer credit shall not express or imply that all transfer credit will be fully accepted or applied toward all Maricopa degree and certificate requirements.

The Maricopa Community Colleges will evaluate coursework from institutions listed in the *database of institutions and programs accredited by recognized U.S. accrediting organizations* at the time the coursework was taken. To be “recognized” means that the accreditors in the database have been reviewed by the Council for Higher Education Accreditation (CHEA) or by the U.S. Department of Education (USDE) or both and meet the quality standards of the respective organizations.

College-level courses completed outside the United States and recorded on official transcripts will be evaluated for transfer credit, provided that the institution where the courses were taken is accredited by the Ministry of Education in that country. It is the student’s responsibility to submit all foreign and international transcripts to an approved international credential evaluation service to be translated into English (when applicable), evaluated on a course-by-course-basis, and sent directly to the receiving college(s). Contact your College Admissions and Records/Enrollment Services Office to obtain a list of recommended evaluation services.

CONDITIONS OF TRANSFER CREDIT:

- Credits transferred from outside of MCCCDC graded on a plus/minus grading scale are converted based on the grading scale of the transferring institution. Only courses with a grade of “C” (2.0 on a 4.0 scale) or better are transferable. Course credit below 100 level, earned at an MCCCDC Institution prior to August 2020 or at a sending institution, cannot be used to calculate grade level.
- Developmental coursework is accepted for the purpose of fulfilling course prerequisites. However, the credit does not apply toward a degree or certificate, and it does not transfer to another postsecondary institution. It does, however, get added to the Transfer Credit Report as part of the evaluation.
- Courses with different credit systems (quarter hours, units) are converted to semester hours of credit. The semester conversion of quarter credits is at a rate of .67 semester credit hours for each quarter hour.
- The age of credit may be considered in applying credit toward degrees and certificate programs.
- Courses accepted as equivalent do not necessarily apply toward the requirements for the student’s declared degree or certificate at MCCCDC.

REVERSE TRANSFER OF CREDIT

In an effort to assist former Maricopa students who have transferred to a university, the Maricopa Community Colleges offer reverse transfer of credit with participating universities. Former Maricopa students may use this opportunity to fulfill previously incomplete coursework requirements. Interested students at participating universities must meet university criteria to qualify for free transcript exchange when available. Participation in reverse transfer of credit does not guarantee coursework applicability or degree or certificate eligibility. Students participating in reverse transfer of credit must meet all curriculum and college requirements.

PRIOR LEARNING ASSESSMENT (PLA)

The Maricopa Community Colleges are committed to the idea that people deserve credit for verifiable college-level learning, no matter how it was acquired. Many people have developed learning outside of the traditional classroom. This evaluation of credit is referred to as Prior Learning Assessment, or PLA. Prior learning can be identified and assessed in a variety of ways to determine if college credit should be awarded. Credit is awarded only to certificate or degree seeking students who:

1. plan to enroll, and
2. are admitted and matriculated within the college awarding the credit. Exceptions can be made for contractual agreements.

Exceptions can be made for contractual agreements. One such exception includes evaluation of journeymen cards for apprentices from current or former apprenticeship partners, or other registered apprenticeship sponsors and intermediaries. Credits awarded for journeymen have a specific PLA evaluation process and separate fee policies.

Associate degree seeking students may be awarded no more than 45 credit hours through prior learning assessment, unless required by a specific program of study within the Maricopa Community Colleges. Up to 60 credits earned through PLA can be applied to a bachelor's degree. Evaluated credit from post-secondary institutions and military credit as indicated on Joint Service transcripts, Community College of the Air Force, and Air University are not included in this credit limitation. Evaluated credit and credit awarded for prior learning does not count as hours in residence for graduation requirements. Please refer to [2.3.9 General Graduation Requirements](#). Exceptions to this institutional policy must have prior written approval of the Program Director, Department/Division Chair, or designee and documentation of rationale and approval included as part of the admission process and/or application to graduate. No more than 20 credit hours may be applied to the Arizona General Education Curriculum (AGEC). Please direct questions about Prior Learning Assessment at the Maricopa Community Colleges to the Admissions and Records/Enrollment Services Office.

PRIOR LEARNING ASSESSMENT FEE SCHEDULE

Transfer credit from nationally recognized institutions, international coursework that has been officially evaluated by a foreign evaluator service (such as Educational Credential Evaluators), standardized college-level exams (such as CLEP, AP, IB, DSST, CIE), GED exams, Military Transcripts, ACE (American Council On Education) transcripts, credit received through organizations and companies that offer nationally recognized credit evaluated by ACE, NCCRS, etc. (STRAIGHTERLINE, NOCTI, STUDY.COM, etc.), industry recognized credentials, industry/corporate training, Skill Center and clock hour transcripts.	No Fees Assessed
Departmental Challenge Exam	\$40 administrative fee per exam request

Evaluation of journeymen cards for credit requires a specific evaluation process and a different fee schedule.

CREDIT BY EXAM (COLLEGE-LEVEL EQUIVALENCY EXAMINATIONS)

ACE has published credit recommendations for a number of national standardized examinations such as the ones listed below in the *Guide to Educational Credit by Examination*. The Maricopa Community Colleges use these recommendations as guidelines to award credit for equivalent coursework as well as elective credit. The number of credits listed in the *ACE Guide* are recommendations only. A college is not required to grant a student the number of credits recommended.

Scores must be sent directly to the Admissions and Records/Enrollment Services Office from the specific testing companies before credit is awarded; equivalencies are subject to review and change. Credit received through Prior Learning Assessment is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. Therefore, students are strongly advised to research the credit for Prior Learning Assessment policies at any college or university outside of the Maricopa Community Colleges to which they plan to transfer. Credit by exam is awarded based on equivalencies in effect at the time of evaluation. Changes to exams and scores are determined by the respective Maricopa Instructional Councils (ICS) and/or Statewide Articulation Task Forces (ATFS).

Maricopa recognizes the following examinations:

- Advanced Placement (AP)
- American College Testing Proficiency Examination Program (ACT-PEP)
- Cambridge International Exams (CIE), A and AS LEVEL
- College-Level Examination Program (CLEP)
- Departmental Exams (also known as “Challenge Exams”)
- Defense Activity For Non-Traditional Education Support [DANTES] Subject Standardized Tests (DSST)
- GED, College Ready + Scores
- International Baccalaureate (IB) Diploma/Certificate
- Pearson VUE Exams

Fees for standardized exams are the responsibility of the student.

[Current list of exams and scores.](#)

ADVANCED PLACEMENT (AP) CREDIT

Students who have taken an advanced placement course of the College Entrance Examination Board (CEEB) in their secondary school and who have taken an advanced placement examination of the CEEB may receive course credit. Scores must be received directly from CEEB to Admissions and Records/Enrollment Services before credit is awarded.

AMERICAN COLLEGE TESTING PROFICIENCY EXAMINATION PROGRAM

The Maricopa Community Colleges may award credit for the American College Testing Proficiency Examination Program (ACT-PEP) based on the scores earned to Admissions and Records/Enrollment Services.

CAMBRIDGE INTERNATIONAL EXAMINATIONS (CIE) A AND AS LEVEL

Students who have taken a Cambridge International Examination may receive college credit. Scores must be received directly from CIE to Admissions and Records/Enrollment Services before credit is awarded.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

Students who have taken a college level examination of the College Entrance Examination Board (CEEB) may receive college credit. Scores must be received directly to Admissions and Records/Enrollment Services from CEEB before credit is awarded.

Estrella Mountain Community College, Rio Salado College, Paradise Valley Community College, and Mesa Community College are CLEP test sites. For more information on registering for the CLEP examinations, contact the Testing Centers at these colleges.

DEPARTMENTAL EXAMS (ALSO KNOWN AS CHALLENGE EXAMS)

Students may apply for departmental credit by examination in certain courses by obtaining the appropriate form in the Admissions and Records/Enrollment Services, paying the required fee, and completing the examination and other requirements of the college. See fee schedule for appropriate fees. Students may not request:

- To challenge a course a second time;
- To challenge a course while currently enrolled in the course;
- To establish credit in a previously completed course; and
- To establish credit for a lower level of a course in which credit has been received.

ADDITIONALLY:

- Exceptions may be granted at some of the Maricopa Community Colleges for their unique programs of study. specialized programs may allow courses to be repeated due to the student needing to have recent knowledge of the content in order to progress in the program.
- Academic departments may have additional requirements that must be met before credit may be granted through departmental credit by examination.
- Only grades of A, B, C, D or P earned as a result of this examination will be recorded on the student's transcript. Fees are not refundable after the examination has been administered, regardless of results.
- When credit is granted as outlined above, a notation of "Credit by Examination," a grade and the number of credits will appear on the student's transcript. The grade is used in computing the grade point average.

DSST (FORMERLY DEFENSE ACTIVITY FOR NON-TRADITIONAL EDUCATION SUPPORT OR DANTES)

The Maricopa Community Colleges may award credit for DSST Examination Program to individuals who meet or exceed the ACE recommended scores for awarding credit on the DSST exams. The Maricopa Community Colleges do not award credit for ENG 102 through DSST examination. Credit received through DSST is transferable within the Maricopa Community Colleges, but is not necessarily transferable to other colleges and universities.

The Assessment Center at Rio Salado College is a DSST test site. For additional information on registering for DSST examinations, call (480) 517-8560.

Students who have taken a DSST examination may receive college credit. Scores must be received directly from DSST before credit is awarded.

GED EXAMS

The Maricopa Community Colleges may award credit for GED subject area scores designated as College Ready + in accordance with the ACE recommended scores. The transcript needs to be sent directly by the Department of Education to the Admissions and Records Office /Enrollment Services in order to be awarded credit. **DISCLAIMER: TEST SCORES ARE CONTINUALLY REVIEWED AND MAY BE UPDATED AT ANY TIME.**

EDUCATIONAL EXPERIENCES IN THE ARMED SERVICES

The Maricopa Community Colleges may award credit for military experiences based on the ACE Guide to the Evaluation of Educational Experiences in the Armed Services. A student may receive college credit if:

- Training parallels a discipline area offered through the Maricopa Community Colleges, and
- Credit meets a program requirement or is used as elective credit.

Upon request, individuals who have successfully completed basic training, four (4) credit hours in physical education will be awarded as indicated in the ACE Guide and the Community College of the Air Force Catalog. Official documentation of military training is required.

INTERNATIONAL BACCALAUREATE (IB) DIPLOMA/CERTIFICATE

Students who present an international baccalaureate diploma/certificate may qualify for college credit. Maricopa grants credit for college-level courses only. Scores must be received directly from the institution where the exams were administered before credit is awarded.

CREDIT BY EVALUATION

COLLEGE CREDIT RECOMMENDATION SERVICE

ACE evaluates training programs offered by business, industry, and government and publishes its credit recommendations in *The National Guide*. If a student has received training that appears in the guide, he or she may receive college credit if:

- Training parallels a discipline area offered through the Maricopa Community Colleges, and
- Credit meets a program requirement or is used as elective credit.

DEPARTMENTAL CREDIT BY EVALUATION

Students may apply for Departmental Credit by Evaluation in certain courses by obtaining the appropriate form in the Admissions and Records /Enrollment Services Office.

Some academic departments may have additional requirements that must be met before credit may be granted through Departmental Credit by Evaluation. When credit is granted a notation of "Credit by Evaluation," and the number of credits will appear on the student's transcript. These credits are not used in computing the grade point average. Credit by Evaluation is transferable within the Maricopa Community Colleges, but is not necessarily transferable to other colleges and universities. Students may not request:

- To challenge a course a second time;
- To challenge a course while currently enrolled in the course;
- To establish credit in a previously completed course; and
- To establish credit for a lower level of a course in which credit has been received.

PLA AND TRANSFER DISCLAIMER

If pursuing a transfer degree (AA, ABUS, AS, AAEE, AAFA, or Articulated Academic Degree Program), transfer credit and PLA will be granted for the purpose of satisfying Maricopa graduation requirements. Because credits may not transfer to all colleges or universities, contact your transferring institution to determine their transfer credit and PLA requirements and policies.

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AMENDED through the Administrative Regulations Approval Process, June 24, 2021

AMENDED through the Administrative Regulations Approval Process, June 30, 2020

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AMENDED by Direct Approval from the Chancellor, August 10, 2018

AMENDED by Direct Approval from the Provost, May 8, 2018

AMENDED by Direct Approval from the Chancellor, June 28, 2017

AMENDED through the Administrative Regulations Approval Process, June 5, 2017

AMENDED by Direct Approval from the Chancellor, January 4, 2017

2.2.6 Academic Advising and New Student Orientation

1. Academic Advising

Students who will be attending college for the first time, and intend to earn a degree or to transfer to a college/university, will be required to meet with an academic advisor within the first two semesters at a MCCCC college.

i. Recent high school students who received MCCCCD credits through Dual/Concurrent Enrollment, ACE, Hoop of Learning, or any MCCCCD Early Outreach Program are considered first time to college.

2. New Student Orientation

Students who will be attending college for the first time, and intend to earn a degree or to transfer to college/university, will be encouraged to attend New Student Orientation within the first two semesters at a MCCCC college.

i. Recent High School students who received MCCCCD credits through Dual/Concurrent Enrollment, ACE, Hoop of Learning, or any MCCCCD Early Outreach Program are considered first time to college.

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AMENDED by Direct Approval from the Chancellor, April 16, 2020

AMENDED through the Administrative Regulations Approval Process, June 4, 2019

2.2.7 Student Assessment and Course Placement

1. Course Placement

A. Students who plan to register in English, Reading, or Math will be advised to enroll into courses based on valid District-approved placement methods.

B. Students who place into course(s) that are below college-level (i.e., below 100-level) will be advised to enroll into the course(s) within the first two semesters.

C. A department/division chair or designee may grant a course placement waiver under special circumstances. The signed waiver will be noted on the student's electronic record. The process may also be done electronically without a signature if supported by the attending college.

D. Course placement will be determined utilizing the district placement options under any one of the following conditions:

- i. The student is taking his or her first college credit English, reading or math course, or any college course for which English, reading or math is a prerequisite.
- ii. The student is pursuing a degree or transfer pathway and does not have current valid District approved course placement on file or does not have previous college credit in English, reading and math.
- iii. The student for whom English is not the primary language and who is taking his or her first English as a Second Language class is required to take a test of English proficiency.

E. Students will be exempt from the course placement process if at least one of the following conditions apply:

- i. The student has earned an associate or higher degree from a regionally accredited college.
- ii. The student has earned college credits from a regionally accredited college in English, reading, and math with a grade of C or higher.
- iii. The student has currently valid District approved course placement scores on file.
- iv. The student who is exempt from the course placement process must still fulfill the minimum graduation requirements.

2. Determining Course Placement

Maricopa County Community Colleges use multiple placement options. In cases, when a course placement test is given, scores will be valid for two years. Other placement methods will also have limited time validity. For additional information, go to [PLACEMENT](#).

- A. Reading placement test scores that indicate “exempt from CRE101” do not expire.
- B. Students will be permitted one re-test in English, reading, or by math level after at least a 24-hour waiting period. One additional re-test is permitted no sooner than three months from the oldest valid score date at any course placement testing site.
- C. The Vice President of Student Affairs or designee may approve re-testing for students with special needs or circumstances. The re-test date will then serve as the date of record.

3. Implementation of Policy

To ensure consistency of the course placement process within the Maricopa Community Colleges:

- A. All colleges shall accept the same approved course placement methods.
- B. All colleges shall adhere to the same approved placement scores.
- C. All colleges shall adhere to the approved limited time validity for each course placement method. for more information, go to: [PLACEMENT](#).
- D. Reading Placement Scores that Indicated “Exempt from CRE101” Do Not Expire.

4. Evaluation

The Maricopa Community Colleges will provide an ongoing evaluation of the course placement process. An annual report shall be submitted to the Governing Board to indicate the policy's effectiveness noting the number of students assessed, their placement scores and their success in courses. Every three years a thorough review of the policy and procedures shall be implemented, including recommendations from the English, Reading and Math Instructional Councils regarding cut-off scores, course placement assessment tools and procedures.

AMENDED through the Administrative Regulations Approval Process, June 4, 2019

2.2.8 Registration

Students must register according to the dates indicated, and in the manner described in the college class schedule. To be eligible for registration, students must have completed the appropriate steps listed under the Admissions section. The college may allow early or priority registration. Tuition and fees must be paid or payment arrangements made by the due date to secure class enrollment. Students may not attend a class for which they are not registered.

The colleges reserve the right to enroll students in courses. The final decision for admission to any class for students admitted under section 2 of AR 2.2.1 will be determined by the designated college administrator in consultation with the department chairperson and/or faculty.

Class Registration Deadlines:

- 1. For classes with published start dates and meeting times, registration in the class must be completed before the first official class meeting date and time. Students may not register for a class once it has started. Self-Service registration for a class through www.maricopa.edu/students will end at 11:59 PM on the day before the class starts. Registration for a class on the date it starts must be done in person or on the phone, and must be completed before the class start time.
- 2. For classes without published meeting times (for example, online classes, special projects), registration in the class must be completed by 11:59 PM on the day before the class starts.
- 3. Exceptions
 - a. Exceptions to class registration deadlines require permission of appropriate instructor(s) and approval of the appropriate department/division chair or designee.
 - b. Exceptions are limited to
 - i. Courses requiring permission of instructor
 - ii. Courses requiring auditions or try-outs
 - iii. Courses for Special Populations or Cohorts
 - iv. Enrollment in an alternative section of a course taught by the same instructor
 - v. Enrollment in an alternative section of a course taught by a different instructor
 - vi. Course level changes

- vii. Students dropped for non-payment during the 100% refund period may be reinstated if they attended since the first class meeting.
- viii. Students dropped due to Human or system errors may be reinstated if they attended the first class meeting.
- ix. Other exceptions may be granted after faculty consultation with the student.

2.2.9 Tuition and Fees Policy

Tuition and fees are public monies within the jurisdiction and responsibility of the Maricopa Community Colleges Governing Board under the laws and regulations of the State of Arizona and must be administered by the Governing Board. The Governing Board reserves the right to change tuition and fee charges when necessary without notice. All students are classified for tuition purposes under one of the following residency classifications:

1. Maricopa County resident
2. Out-of-County resident
3. Out-of-State resident (including F-1 non-immigrant students)

Residency for tuition purposes is determined in accordance with state law (ARS §§15-1801 et seq.) and regulations of the Maricopa Community Colleges Governing Board. All of the Maricopa Community Colleges are subject to the above statutes and regulations. Students who have questions about their residency should contact the Admissions and Records Office/Office of Student Enrollment Services for clarification.

Students attending more than one Maricopa Community College will be assessed fees for their enrollment at each of the Maricopa Community colleges/centers. (Students who are considered to be out-of-state residents for tuition and fees purposes should refer to Appendix S-3, Concurrent Enrollment in Arizona Public Institutions of Higher Education.)

1. Time of Payment*

All tuition, fees, assessments and deposits must be paid at the time of registration or by the specified deadline date and in accordance with the fee schedule approved by the Maricopa Community Colleges Governing Board.

2. Tuition and Fees Schedule (Effective July 1, 2018 for fall, spring and summer Sessions)*

Current information can be found at <https://district.maricopa.edu/regulations/admin-regs/appendices/students/s-4>

The following is a tuition and fees schedule for 2018-2019 and is provided for reference. ***These tuition and fees are subject to change.*** Consult the college's Admissions and Records Office/Office of Student Enrollment Services for course fees in effect during the semester/term in which you intend to register. See [Appendix S-4](#).

Amended by Direct Approval from the Chancellor, November 21, 2018

[Appendix S-4: Tuition & Fee Schedule](#)

A. Determine Student Residency Status

Refer to admissions information ([AR 2.2.2](#)) of the college catalog for residency information and to review the requirements for classification as a Maricopa county resident. Contact the Admissions and Records Office/Office of Student Enrollment Services if you have questions about residency requirements.

B. Use the Chart to Locate Tuition Charges

Determine the correct column based on your residency status and then select the number of credit hours. The general tuition chart is provided for reference only.

C. Add Any Additional Fees

A one-time, per semester \$15 registration fee is due by the official start of the term (semester) or by the specified due date or at time of registration.

D. There may also be additional course fees for classes, please refer to the college schedule for course fees.

E. If you choose to audit a class, add an additional fee of \$25 per credit hour.

F. Additional course fees may apply for specific courses. Check with the college's Admissions and Records Office/Office of Student Enrollment Services for a current listing of course fees.

G. Pay Your Fees

Payment of fees may be made by cash, check, money order, VISA, MasterCard, Discover or American Express. Payment Plan options are also available.

NOTE: If you do not pay your tuition and fees at the time of registration or by the specified due date, you may be dropped from your classes and may be responsible for the tuition and fees based on the refund schedule which outlines the refund deadlines for each course.

Skill Center Tuition Rates

Regular	\$5.00 per clock hour
Nursing Assistant	\$6.00 per clock hour
Practical Nursing	\$6.00 per clock hour

Amended through the Administrative Regulations Approval Process, May 5, 2017

Credit by Examination & Credit by Evaluation (excludes Allied Health courses)

Regular Rate	\$85.00 per credit hour
Contract Rate	\$42.50 per credit hour

3. Outstanding Debts

Any debt or returned check may revoke a student's current enrollment and the student's right to register in subsequent semesters at all Maricopa Community Colleges. Delinquent debts may require penalties, late charges, collection costs, and/or legal fees to be paid before good standing is restored to the student.

The following procedure will be used for the collection of returned checks and other outstanding debts:

- A. The designated college official or fiscal officer is responsible for:
 - i. Verifying the student's district wide debt,
 - ii. Attempting to notify the student of the debt and
 - iii. Attempting to collect the debt.
- B. Maricopa Community College services may be withheld pending payment of debt (at designated college office) with cash, certified check or money order or online with debit or credit card or in person with credit card. Student may be withdrawn from classes.
- C. If other collection attempts fail, the Maricopa Community Colleges District Office will either collect or use other means available, including:
 - i. Collection agency, requiring payment of collection fees by the student;
 - ii. The Tax Refund Setoff Programs as stated in ARS §42-1122;
 - iii. Litigation, requiring payment of court costs and legal fees by the student.
- D. Debt Holds may be lifted only in limited instances by the appropriate College or District business services designee for the extension of services provided that at least one of the following conditions are met:
 - i. MCCCCD staff verify that full payment has been made to another College;
 - ii. The College can deduct payment from a financial aid award made to the student (referring to student authorization guidelines for regulations on applying federal financial aid to debt balances);
 - iii. A third party not related to the student, such as an employer or state agency, makes a verified payment directly to the College;
 - iv. It is determined and verified with the appropriate MCCCCD office that the hold resulted from a system error and the error is due to an activity that requires correction by the appropriate College or District personnel.

Admission Criteria to Attend a College within the Maricopa Community College District (MCCCCD) is determined in accordance with state law (ARS §§15-1805.01 AND 15-1821) and regulations of the Maricopa Community Colleges Governing Board and the Chancellor. As such, participants enrolled in courses as part of third party agreements are also subject to the same admissions criteria. This includes the participants resolving any current enrollment or

administrative holds that are unrelated to the Third party in an existing student account, but that otherwise impact his/her eligibility to enroll in courses or participate in programs delivered by MCCCDC faculty or staff.

4. Discounted Fees and Waivers

- A. Citizens 62 years of age and older shall be issued ID cards that allow them the privilege of attending events at no cost and that allow them to use the library facilities.
- B. Employees, Dependents and Mandated Groups
The Maricopa Community College District waives tuition and student activity fees for credit-hour courses for employees and their dependents, and for legislatively mandated groups. Special fees and fees for Non-credit/Special interest Community Services courses are not waived.
- C. Tuition and Registration Fee Waiver for Members of the Pima-Maricopa Indian Community
Tuition and fee waivers shall be funded through Auxiliary Fund Monies for college credit courses for the enrolled members of the Pima-Maricopa community who live on the Pima-Maricopa Reservation.

All other guidelines and procedures established for the purpose of administering waivers, affidavits and exemptions are outlined in the Maricopa County Community College District tuition waiver manual.

2.2.10 Refund Policy

1. Refund Policy for Credit/Clock Classes

Students who officially withdraw from credit/clock classes (in fall, spring, or summer) within the withdrawal deadlines listed below will receive a 100% refund for tuition, class and registration fees. Deadlines that fall on a weekend or a college holiday will advance to the next college workday except for classes fewer than 10 calendar days in length or as specified by the college. Calendar days include weekdays and weekends. Refer to individual colleges for withdrawal and refund processes. Never attending is not an allowable refund exemption or an excuse of the debt incurred through registration.

Length of Class	Official Withdrawal Deadlines for 100% Refund
1-9 calendar days	Prior to the class start date
10-19 calendar days	1 calendar day including the class start date
20-29 calendar days	2 calendar days including the class start date
30-39 calendar days	3 calendar days including the class start date
40-49 calendar days	4 calendar days including the class start date
50-59 calendar days	5 calendar days including the class start date
60-69 calendar days	6 calendar days including the class start date
70+ calendar days	7 calendar days including the class start date

**Course fees and registration processing fees will be refunded only if the student qualifies for a 100% refund. Debts owed to any MCCCDC college must be satisfied before any refunds are paid to the student. Refunds for students receiving federal financial assistance are subject to federal guidelines. Requests for exceptions to the refund policy must be filed within one year from the semester in which the course was taken.*

2. Refund Policy for Non-Credit Classes

Unless otherwise specified, students must drop non-credit classes prior to the course start date to be eligible for a 100% refund.

3. Canceled Classes

When a class is canceled by the college, a 100% refund will be made.

4. Refund Exceptions

Students withdrawing from a college or from courses for one of the following reasons must submit a written request for a refund exception to the Admissions and Records Office/Office of Student Enrollment Services or designated college official:

- A. A student with a serious illness, verifiable by a doctor's written statement that the illness prevents the student from attending all classes for the semester. The doctor's statement must be on file with the college before a refund can be given.

- B. Serious illness or death of an immediate family member that prevents the student from attending all classes for the semester. Immediate family members include spouse/partner, father, mother, grandfather, grandmother, child, foster child, grandchild, stepchild, sibling, stepsibling, stepfather, stepmother, or spouse's/partner's father, mother, grandfather, grandmother, or in-laws in any one incident. Appropriate documentation must be provided before a refund can be given.
- C. Death of a student. Appropriate documentation must be provided before a refund can be given.
- D. A student in the armed forces or the Arizona National Guard who is called to active duty and assigned to a duty station, verifiable by a copy of the orders, will be allowed to withdraw and receive a 100% refund of tuition, provided courses have not been completed.

Requests for a total withdrawal from a college or courses for one of the above reasons may result in a partial prorated refund of tuition, provided courses have not been completed. All decisions made by the college are final.

Limitation: Never attending is not an allowable refund exception or an excuse of the debt incurred through registration

5. Refund Policy for Department of Defense Tuition Assistance Funds

Students who receive tuition assistance (TA) funds for a course or courses from the department of defense (DOD) may have a refund processed and returned to the student's DOD branch of service in the following situations. Refer to individual colleges for withdrawal and refund processes.

- A. Per refund exception D, a student who is called to active duty and assigned to a duty station, verifiable by a copy of the orders, will be allowed to withdraw, provided courses have not been completed. A 100% refund of TA funds will be issued to the student's DOD branch of service.
- B. A student who withdraws for reasons other than those outlined above within the first 60% of the period for which funds were received will have the proportional amount of unearned TA funds returned to the student's DOD branch of service. Refer to individual colleges and DOD branch of service for potential student financial responsibility as a result of withdrawal.

Requests for refund should be referred directly to the college of enrollment.

Amended through the Administrative Regulations Approval Process, June 12, 2023

AMENDED by Direct Approval from the Chancellor, January 13, 2020.

AMENDED through the Administrative Regulations Approval Process, May 5, 2017

2.2.11 Student Financial Assistance

The Maricopa Community Colleges provide students financial assistance to enable access to higher education. Student financial assistance shall be awarded on the basis of demonstrated financial need except where funds are specified for recognition of special talents and achievements. Additional procedural information on financial assistance is available in [Appendix S-5](#).

Appendix S-5: Student Financial Assistance

Additional Information about Financial Aid may be found at www.maricopa.edu/students website.*

The Maricopa Community Colleges provide students financial assistance to enable access to higher education. Student financial assistance shall be awarded on the basis of demonstrated financial need except where funds are specified for recognition of special talents and achievements. Only those with a lawful presence in the United States may qualify for federal financial aid. Under Arizona state law, undocumented students may qualify for Maricopa County Community College District (MCCCD) scholarships if they meet the terms outlined under Proposition 308.

The office of financial aid may request to have the validity of a student's high school completion evaluated if either the college or the United States Department of Education has reason to believe that the high school diploma is not valid or was not obtained from an entity that provides secondary school education. An evaluation may be conducted on the basis of any of the following:

- Alerts, bulletins, or similar communications provided by any state, federal, or other governmental agency, another institution, a professional or similar organization, or any other resource that might provide information helpful to the evaluation;
- A transcript or other record received from another institution the student may have attended;
- The contents of the student's Free Application for Federal Student Aid, student information form, or any other information the student provides to the college;
- The independent professional judgment by any official of the office of student financial aid.

How to Apply for Federal Financial Aid

New students must complete the Free Application for Federal Student Aid (FAFSA) or FAFSA on the web at <https://studentaid.gov/h/apply-for-aid/fafsa>. Each academic year, continuing students must reapply by completing a FAFSA, Renewal FAFSA, or FAFSA on the web. Scholarships require separate applications. Specific information regarding financial assistance, including application deadlines or priority dates, may be obtained from the college Office of Student Financial Aid.

Types of Aid

Grants, loans, student employment, and scholarship funds may be available from federal, state, and/or private sources.

The Maricopa Community Colleges Foundation offers a variety of scholarship opportunities. Scholarship opportunities are available year round. However, most scholarships are posted mid-January and most deadlines are the last week of March. Options are available at <https://mcccdf.org/> or by calling 480-731-8400.

Distribution of Aid

Criteria by which aid is distributed among eligible financial aid applicants are available on request at the college Office of Student Financial Aid.

Rights and Responsibilities

Students should read all information provided in the process of applying for federal financial aid in order to gain a greater knowledge of all the rights as well as responsibilities involved in receiving that assistance.

Satisfactory Academic Progress

Specific requirements for academic progress for financial aid recipients are applied differently than scholastic standards. In addition to scholastic standards which are explained elsewhere in this catalog, financial aid recipients are also subject to the following [Standards of Satisfactory Academic Progress](#). Specific information is available at the college Office of Student Financial Aid.

Refunds and Repayments

In accordance with federal regulations (CFR 668.22), a student may be required to repay federal financial aid funds if they completely withdraw, are withdrawn, or fail to earn a passing grade from all classes during a semester. Further information is available at the college Office of Student Financial Aid. This could affect a student's ability to receive Financial Aid in the future at any school. For a student receiving Financial Aid, also see [Administrative Regulation 2.3.6 Withdrawal](#) for Withdrawal procedures.

Verification of Information

1. A Free Application for Federal Student Aid (FAFSA) or a change to that FAFSA may be selected for verification. If a student's FAFSA is selected for verification, the student will be notified via the Student Center in www.maricopa.edu/students. In most cases, the student will be required to submit documentation as part of the verification process. The earlier the Financial Aid Office receives the required documentation, the earlier the

student's eligibility for financial aid can be determined. The verification process must be completed no later than 120 days after the last date of enrollment or August 31, whichever comes first. In addition, the Financial Aid Office must receive a final and valid electronic SAR by the student's last day of enrollment or June 30 of the award year, whichever comes first. The verification process must be completed before the Financial Aid Office can award any federal aid.

2. If an award has already been made and a FAFSA is selected for verification, the student must provide required documentation within thirty days after it has been requested of the student or on June 30, whichever comes first. If documentation is not received within this deadline, the student's award may be adjusted or canceled.
3. The required forms and documents a student submits for verification will be compared to the information reported on the student's FAFSA. If the information provided does not match what is shown on the FAFSA, the Financial Aid Office will submit changes to the US Department of Education FAFSA processor. After all changes are made to the FAFSA data, the student's eligibility for financial aid will be reviewed. If there are any changes to the student's financial aid eligibility as a result of verification, the student will be notified by means of the Student Center in www.maricopa.edu/students. If, following verification, the institution discovers evidence of student aid fraud (including identity theft), waste or abuse of US Department of Education funds, such evidence may be referred to the Office of Inspector General of the US Department of Education.

Award Amount and Level of Enrollment

Award amount is determined, in part, on the level of enrollment. A reduction in course load after financial aid has been awarded may result in an adjusted financial aid award. Federal student aid recipients are advised to register at the same time for all classes they intend to take during a semester to maximize award. Some federal aid may not be awarded for classes added at a later date. Contact the college Office of Student Financial Aid for more information.

Repeated Coursework and Financial Aid Enrollment Status

Federal regulations regarding repeated coursework may impact your financial aid eligibility and awards. Federal regulations specify that students may receive federal financial aid funding for one repetition of a previously passed course. A passed course is defined as one in which a grade of A, B, C, D, or P is received. If you enroll in a course in which you have previously received passing grades twice, the course will not be counted towards your enrollment level for financial aid purposes. You may repeat a failed course until it is passed. Your enrollment for financial aid purposes will be calculated accordingly.

Maricopa Community Colleges Standards of Satisfactory Academic Progress (SAP) for Financial Aid Eligibility

Federal regulations (CFR 668.32(f) and 668.34) require a student to move toward the completion of a degree or certificate within an eligible program when receiving financial aid. Specific requirements for academic progress for financial aid recipients are applied differently than Scholastic Standards. Federal regulations state that Academic Progress Standards must include a review of all periods of enrollment, regardless of whether or not aid was received. Students will be evaluated using the standards described below. Failure to meet any of these minimum standards will result in loss of Title IV, HEA program (federal financial aid) eligibility.

To remain eligible for federal and state aid programs, students must meet ALL of MCCCDC's Satisfactory Academic Progress (SAP) standards regardless of whether a student has received financial aid in the past or not. These standards apply to a student's entire academic records at any MCCCDC college, including transfer credit hours accepted by the college.

1. Definitions and Terminology Pertaining to this Policy

1. Summer: Enrollment in the summer semester includes all courses scheduled within the summer enrollment period with all coursework counted in the SAP evaluation.
2. Non-Standard Session / Clock Hour: Sessions that do not follow the traditional start and end dates for the semester.
3. Attempted Credit: Any credit for which a grade of A, B, C, D, F, I, IP, N, P, W, Y, or Z is received and courses not yet graded.
4. CGPA [Cumulative Grade Point Average]: The MCCCDC grading policy is published in the administrative regulations at 2.3.3. The CGPA does not include credits accepted in transfer.

5. Financial Aid Warning: status assigned to an eligible payment period for the next enrolled semester after failing SAP GPA (2.0) and/or Completion Pace ($\frac{2}{3}$). Students not meeting maximum timeframe evaluation are not eligible for a warning period.
6. Appeal: A process by which a student who is not meeting the institution's satisfactory academic progress standards is eligible to appeal the institution for reconsideration of the student's eligibility for Title IV, HEA program assistance based on extenuating circumstances.
7. Extenuating Circumstance: A one-time (not on-going) circumstance that is beyond the reasonable control of the student. Examples of extenuating circumstances may include, but not limited to:
 - a. Documented medical condition or serious illness that prevented you from performing certain life tasks
 - b. Documented illness of a family member that required your presence for a significant amount of time
 - c. Death of immediate family member which impacted you significantly enough to affect participation in your courses
 - d. Involuntary call to active military duty
 - e. Documented involuntary change in employment conditions that prevented you from attending classes
 - f. Any other extraordinary/emergency circumstances, such as a natural disaster
8. Financial Aid Probation: A status assigned by an institution to a student who fails to make satisfactory academic progress and who has appealed and has had eligibility for aid reinstated. A student in this status may not receive Title IV, HEA program funds for the subsequent payment period unless the student makes satisfactory academic progress or the institution determines that the student met the requirements specified by the institution in the academic plan for the student.
9. Academic Plan – A plan developed through the SAP Appeal Process which will lead a student to qualify for further Title IV, HEA program funds and complete the program within 150% of published program length.
10. Financial Aid Suspension – The status assigned upon failing to meet the minimum SAP standards or the terms of probationary status. Students in this status are not eligible to receive Title IV, HEA assistance.

2. Federal regulations (CFR 668.32(f) and 668.34) require institutions of higher education to evaluate Satisfactory Academic Progress (SAP) using qualitative (GPA) and quantitative (pace of progression) standards.

3. Qualitative and quantitative measures of SAP are required to ensure students receiving Federal Student Aid are progressing towards the completion of a degree or certificate within an eligible program.

4. Specific requirements for academic progress for Federal Student Aid recipients are applied differently than Scholastic Standards. Federal regulations state that SAP Standards must include a review of all periods of enrollment, regardless of whether or not aid was received. Standards are applicable for all enrolled payment periods, including all levels of enrollment (full-time or part-time enrollment). Students will be evaluated using the standards described below.

5. Failure to meet any of the minimum standards outlined below will result in a student's loss of HEA, Title IV Federal Student Aid.

Evaluation Period

1. Standards of Satisfactory Academic Progress (SAP) will be evaluated at the end of each payment period. For credit hour programs, a payment period is a semester (Fall, Spring, and Summer). For clock hour programs, a payment period / evaluation will depend on the hours required in the program.
2. Standards of Satisfactory Academic Progress (SAP) are evaluated based on qualitative (GPA), quantitative (pace of progression), and maximum timeframe. Failure to meet any of these standards may result in the loss of eligibility

for financial aid. Grades of F, I, N, W, Y, Z, and courses not yet graded are considered attempted, but not completed in evaluating SAP. Late grades will be recalculated and may change eligibility.

1. **Grade Point Average Qualitative Measurement:** Students must maintain a 2.0 cumulative Grade Point Average in order to meet SAP GPA requirements.
2. **Pace of Progression Quantitative Measurement:** Students must successfully complete 2/3 (66.67%) of all attempted course work. For clock hour programs, please refer to program attendance requirements.
3. **Maximum Time Frame Measurement:** Students must be able to complete their program within 150% of the published program length. Once students have attempted 150% of the published program length, they are no longer eligible for Federal Student Aid. For example, a 16 credit certificate program will allow up to 24 credit hours to complete the program. A 60 credit Associate's degree will allow up to 90 credit hours to complete the program. A 120 credit bachelor's degree will allow up to 180 credit hours to complete the program.

3. Courses included in SAP evaluation:

- a. All attempted coursework, regardless of enrollment status
- b. Courses funded through a Consortium Agreement
- c. All attempted remedial credits, including English as a Second Language (ESL) courses.
- d. Repeated course work
- e. All transferred coursework
- f. Grades attempted, but not completed (F, I, N, W, Y, Z)

4. Course work included in the Maximum Time Frame evaluation:

- a. All of those included in the Pace of Progression evaluation
- b. Any Bachelor's degree (or higher) earned will be considered to have exhausted maximum timeframe eligibility
- c. All coursework forgiven through the Academic Renewal Process

5. Course work not included in SAP evaluation:

- a. Audited courses
- b. Non-credit courses
- c. Credit by examination
- d. Credit for prior learning option (as outlined in the college general catalog)

Notification

Students who have applied for Federal Student Aid, but are not meeting Satisfactory Academic Progress requirements, will be notified via email of their FA Warning or ineligibility for financial aid. The notification will direct students to information regarding available college resources during the Warning Period and the appeal process in cases of extenuating circumstances.

Financial Aid Warning

Students are allowed a warning period upon failing Qualitative and/or Quantitative SAP standards. The warning period allows one (1) payment period (semester) of Federal Student Aid eligibility upon failing SAP. The warning period will follow the semester for which SAP was not met, meaning the next semester for which the student registers for classes. In order to receive the Warning period, students must be meeting Maximum Timeframe requirements.

SAP Appeal

Any student who has lost federal student aid eligibility due to a resolved, one-time extenuating circumstance may appeal to have their financial aid reinstated by completing a Satisfactory Academic Progress Appeal Form. The form must address:

1. what caused the student's work to fall below acceptable standards--specific explanations must be provided, including any supporting documentation,
2. each incomplete/failed course,
3. how the extenuating circumstance has been resolved, and
4. how the student will maintain good academic standards and progress toward the degree if the appeal is granted.

The outcome of the appeal will depend upon:

1. the nature of the extenuating circumstances (if the stated circumstance qualifies as such),
2. the quality of the documentation provided, and
3. how well the student has demonstrated the ability to progress towards degree completion within a reasonable time period.

All documentation submitted is confidential. All decisions are final and cannot be appealed. For assistance in completing the SAP appeal paperwork, including examples of supporting documentation, visit your college Financial Aid Office.

Students will be notified of the results of their appeal within ten (10) days of filing the appeal. Notification will include any restrictions or conditions pertaining to their appeal. The outcome of an appeal may include a probationary period. Appeals granted longer than one (1) payment period must include an academic plan, which must be followed. Failure to follow an approved academic plan will result in immediate suspension of Federal Student Aid. Students are responsible for any and all debt incurred as a result of this adjustment to financial aid.

Failure to successfully complete all conditions during the probationary period (as defined in the academic plan) will result in loss of future financial aid eligibility.

Regaining Eligibility

A student who has lost financial aid eligibility may only regain eligibility by meeting the minimum SAP standards. Transfer coursework taken at other colleges will be considered for reinstatement purposes.

If you are receiving federal financial aid it is important to read the information below prior to making a decision to withdraw.

Treatment of Title IV Aid When a Student Withdraws

POLICY SUMMARY STATEMENT

To provide guidance on the treatment of federal student aid (Title IV) funds when a student withdraws from a Maricopa College.

DEFINITIONS

Date Of Determination – The date of determination is the date in which the school determines that a student ceased attendance or completely withdrew from school. This may be the date that the institution becomes aware that the student ceased attendance, or the date that the student begins the official withdrawal process at the school.

Earned Aid Calculation – A formula used to determine the amount of Title IV aid the student earned for the payment period. To calculate the amount of Title IV aid earned by the student multiply the percentage of Title IV aid earned by the student, by the total amount of Title IV aid disbursed (including that which could have been disbursed to the student or on behalf of the student), for the payment period as of the student's withdrawal date.

Official Withdrawal - The process by which a student begins the school's official withdrawal process or provides official notification to the school of his or her intent to withdraw. The student's approach to his or her withdrawal directly impacts the school's date of determination for which the student ceased attendance, and is used in the return of Title IV funds calculation.

To officially withdraw, the student will need to notify a designated office; this office for most MCCCDC colleges is the Admissions and Records department. The designated office staff will assist the student to complete the withdrawal process. Schools will utilize a change in student status or comparable form to record a student's withdrawal, official or unofficial (see "unofficial withdrawal" definition). The School Registrar will determine the last date of attendance based on federal and institutional policy and the school's date of determination. The date of determination is either the date that the student began the prescribed withdrawal process, or the date that the student provided the school with an official notification of his or her intent to withdraw, whichever is later. If the student is present, the student will sign and date the change in status or comparable form. Designated office staff will also sign and date the form, and retain it in the student's file at the school.

Order of Return of Title IV Funds - A federally prescribed order for returning Title IV funds required as a result of a return of Title IV funds calculation. Unearned funds, returned by either the institution or the student, are credited to the programs from which the student received the aid from during the payment period, up to the net amount disbursed from each program. Funds will be returned based on the following order:

1. Unsubsidized Federal Direct Stafford Loans
2. Subsidized Federal Direct Stafford Loans
3. Federal Direct Plus Loans
4. Federal Pell Grants
5. Iraq and Afghanistan Service Grants
6. FSEOG
7. Teach Grants

Percentage of Title IV Aid Earned – definitions for term, and modular programs below, in accordance with ED regulations:

Title IV Credit Balance - A Title IV credit balance occurs whenever the amount of Title IV funds credited to a student's account for a payment period exceeds the allowable charges associated with the semester (payment period). All Title IV federal student aid credit balances are disbursed directly to the student and refunded to the method selected in the student center. Refunds are generally processed within 3 business days but no later than 14 days of when credit balance occurred.

STANDARD TERM PROGRAMS

Upon the withdrawal, the District Office Student Financial Services (DOSFS) will calculate the percentage and amount of awarded federal student aid funds that the student has earned in the payment period. In some cases and depending upon the withdrawal date and percentage of completion, the student may earn 100 percent of the fsa funds, the calculation will still be completed as required and the amount earned will be based on the percentage of the term or payment period that was completed in days up to and including the last date of attendance or eligible academic activity, with scheduled attendance locked at census / pell recalculation. To calculate the amount earned, DOFA will determine the percentage by dividing the number of calendar days completed in the term/payment period up to and including the last date of attendance by the total number of calendar days in the term/payment period. The number of days a student is scheduled to attend during a payment period is determined based on the start and end date of the scheduled term / payment period. All scheduled breaks during the term / payment period are excluded from the calculation.

MODULES

A program that is offered in modules is a program that consists of course(s) in the program that do not span the entire length of the payment period or period of enrollment. ***Regulatory change effective JULY 1, 2021: a program is offered in modules if the program uses a standard-term or non-standard term academic calendar, is not a subscription-based program, and a course or courses in the program do not span the entire length of the payment period or period of enrollment.*** The DOSFS will calculate the percentage and amount of awarded federal student aid that the student earned within the payment period. If the student has completed more than 49 percent of the payment period, *or* has completed all of the degree requirements from his/her program before completing the days/hours in the period that he/she was scheduled to complete, *or* if the student completes coursework equal to or greater than the coursework required for the institution's definition of a half-time student for the payment period, *or* the school receives written notification that the student will attend a module that begins in the same payment period or period of enrollment, the student is not considered to have withdrawn, and a Return of Title IV Funds (R2T4) is not required and will not be calculated.

When a student withdraws from the payment period before completing 49 percent of the payment period, the amount of federal student aid the student earned is determined based on a specific formula. The number of days a student is scheduled to attend during a payment period is determined based on the start and end date of the scheduled term / payment period, with scheduled attendance locked at census / Pell recalculation. Scheduled breaks are excluded from the calculation. The amount of assistance the student earned is determined on a rate-of-progression basis.

POST-WITHDRAWAL DISBURSEMENT - If, as of the date of the institution's determination that the student withdrew the amount of Title IV aid that the student earned is more than the amount of Title IV aid disbursed to the student or on behalf of the student, the difference between these amounts is considered earned aid, and must therefore be applied to outstanding charges on the student's account and/or directly disbursed to the student.

RETURN OF TITLE IV FUNDS (R2T4) - When a recipient of Title IV aid withdraws from an institution during a payment period or period of enrollment in which the recipient began attendance, the school must calculate the amount of earned and unearned Title IV aid and compare this to the amount of aid disbursed at the date of determination, to determine how to proceed.

If it is determined that the amount of Title IV aid disbursed exceeds the amount of Title IV aid earned, a return of Title IV funds is due, and both the school and the student may have a responsibility for returning the unearned portion of the funds. The school must return the unearned portion of Title IV aid for which the school is responsible for and notify the student of the unearned portion of Title IV aid that the student is responsible for and therefore must return.

If it is determined that the amount of earned Title IV aid exceeds the amount of Title IV aid disbursed, the student may be eligible for the amount of aid not yet disbursed, in the form of a post-withdrawal disbursement. A post-withdrawal disbursement must be made within 180 days of the date the institution determined that the student withdrew. The amount of a post-withdrawal disbursement is determined by following the requirements for calculating earned Title IV aid and has no relationship to incurred educational costs. All Title IV federal student aid credit balances are disbursed directly to the student and refunded to the method selected in the student center. Refunds are generally processed within 3 business days but no later than 14 days of when credit balance occurred.

TITLE IV LOANS

For unearned funds calculated to be returned by the school:

It is policy, as part of the R2T4 process, to provide notification to the student indicating the loan type(s) and amount(s) calculated as needing to be returned and, thus, the date returned by the school. The school must return the lesser of the

amount of Title IV funds not earned, or the amount of institutional charges that the student incurred for the payment period multiplied by the percent of funds not earned.

For unearned Title IV funds calculated to be returned by the student:

If there is a remaining balance of unearned Title IV aid which needs to be returned, after the school has returned its portion of unearned Title IV aid, the student (or the parent for Plus loan) is responsible for returning this amount. While the student must return or repay any unearned Title IV loan amount in accordance with the terms of the loan, the student must repay any unearned Title IV grant funds as an overpayment of the grant. The student's portion is calculated by subtracting the amount of unearned Title IV aid that the institution is required to return from the total amount of unearned Title IV aid required to be returned. If it is calculated that unearned loan(s) need to be returned by the student, the center will notify the lender or servicer of the student's last date of attendance; the student will not need to repay the loan(s) immediately, but will repay the loans based on the terms of the promissory note. The lender or servicer will notify the student or parent, per the terms of the promissory note.

TITLE IV GRANTS

For unearned funds calculated to be returned by the school or student:

It is policy, as part of the R2T4 process, to provide notification to the student indicating the grant type(s) and amount(s) calculated as needing to be returned and, thus, the date returned by the school.

RETURN OF UNEARNED AID - If, as of the date of the institution's determination that the student withdrew the amount of Title IV aid that the student earned is less than the amount of Title IV aid disbursed to the student or on behalf of the student, the difference between these amounts is considered unearned aid, and must therefore be returned to the Title IV program in a specified order, by either the school, the student, or both.

UNOFFICIAL WITHDRAWAL (also known as an "administrative" withdrawal) - A student who did not begin the official withdrawal process or provide notification of his or her intent to withdraw; the date of the school's determination that the student withdrew would be the date that the school becomes aware that the student ceased attendance. See "official withdrawal" definition above.

A student who does not notify the school that s/he is withdrawing but ceases attending, is administratively withdrawn by the school within 14 days of non attendance; this is otherwise known as an unofficial withdrawal. A student is administratively withdrawn from school when the student violates the school's published attendance policy, which adheres to state licensing and accreditation requirements. Please see the school's catalog for its current attendance policy.

WITHDRAWAL DATE (also known as the "last date of attendance") - The date that the student begins the school's withdrawal process or the date that the student provides official notification of intent to withdraw, whichever comes earlier. If the student does not provide any official notification of intent to withdraw, the withdrawal date will be determined by the school, and depend upon the student's circumstances.

FEDERAL TITLE IV REFUND POLICY

If a recipient of Title IV grant or loan funds withdraws from a school after beginning attendance, the school must perform a Return of Title IV Funds (R2T4) calculation to determine the amount of Title IV federal student aid funds earned by the student. If the calculation determines that the amount of Title IV aid disbursed to the student is greater than the amount the student earned, the unearned Title IV funds must be returned to the program. If it is determined that the amount of

Title IV aid disbursed to the student is less than the amount the student earned (and for which the student is otherwise eligible for), the student may be eligible for a post-withdrawal disbursement for the earned Title IV funds not yet disbursed to the student.

The R2T4 calculation is required if a student receiving Title IV federal student aid ceases attendance or completely withdraws from all courses without completing the semester (payment period).

The school must determine the amount of Title IV aid earned by the student, as of the withdrawal date. Once the earned portion is calculated, the unearned portion is calculated to determine if funds must be returned to the program or a post-withdrawal disbursement is necessary. Federal policy is followed to determine the amount of Title IV aid earned on a case by case basis. The R2T4 calculation is always required when a student fully withdraws or ceases attendance prior to the scheduled end of the semester, the calculation may determine that the student earned 100% of Title IV funds and will not be required to return funds. A Return of Title IV Funds worksheet is calculated when a student ceases attendance in all courses within the scheduled semester (payment period), i.e. withdrawal.

WITHDRAWAL PROCEDURE OVERVIEW:

POLICY DISCLAIMER

This policy serves as a guideline for the refund of Title IV and tuition procedure with the understanding that it does not cover every possible scenario. As a result, complex areas may arise where certain refund procedures may need to be addressed on a case-by-case basis.

PARTY(IES) RESPONSIBLE FOR POLICY TRAINING

MCCCD District Office of Financial Aid Compliance and Operations / Office of General Council. District Director Of Financial Aid Operations and Compliance. The policy owner is responsible to determine the method, means and frequency of training on this policy.

EXCEPTIONS

Requests for an exception to this policy should be addressed to the policy owner as outlined in the procedure for requesting a policy exception.

POLICY REVIEW/UPDATE AND AUDIT

This policy will be reviewed annually. compliance with this policy is audited on a random basis by Internal Audit.

TECHNICAL CHANGE, July 11, 2023

AMENDED through the Administrative Regulation Approval Process, June 12, 2023

AMENDED through the Administrative Regulation Approval Process, May 24, 2022

TECHNICAL CHANGE by Legal Counsel, May 6, 2020

AMENDED by Direct Approval from the Chancellor, May 5, 2020

AMENDED through the Administrative Regulations Approval Process, June 5, 2017

2.2.12 Vaccinations (As Required By 20 USC §1092(a)(1)(V)):

The Maricopa County Community Colleges District does not require that students receive vaccinations prior to enrollment. Certain professional or occupational programs do require particular vaccinations for participation in those programs. More information about these programs can be found on college websites.

2.2.13 UNIVERSITY TRANSFER

UNIVERSITY TRANSFER

The Maricopa Community Colleges have developed formal agreements to facilitate the transfer of credit to other bachelor degree awarding [colleges and universities](#). This is accomplished through the development of course and program articulation agreements. The Maricopa Community Colleges articulate with accredited private, public, and

international baccalaureate granting institutions. Maricopa transfer agreements are on behalf of the district as a whole and not with individual colleges within the District. Courses taken at any of the Maricopa Community Colleges are equally transferable by institutions wishing to articulate. Students planning to transfer to a university may be required to submit official transcripts.

Articulated transfer programs and pathways between the Maricopa Community Colleges and other institutions [such as the MYPATH2ASU™, the UA Bridge Program, 2NAU and 90/30 Transfer Agreements] are official, recognized programs of study that fulfill degree requirements at both institutions. These articulated programs and pathways are designed to aid in a smooth transition for a student planning to transfer to a college or university by identifying the required, transferable, and applicable coursework for that student's specific program of study. A complete list of MYPATH2ASU™ requirements by major and catalog year is maintained on ASU'S website, at [Transfer](#).

ARIZONA PUBLIC COMMUNITY COLLEGES AND UNIVERSITIES

Maricopa is a participant in the Arizona statewide transfer system. [AZTRANSFER.COM](#) is the official source of information for the statewide articulation agreements between the Arizona public community colleges and universities (Arizona State University, Northern Arizona University, and University of Arizona). Included on [AZTRANSFER.COM](#) is the Course Equivalency Guide (CEG), which shows transfer course equivalencies between Arizona's public community colleges and tribal institutions to Arizona State University, Northern Arizona University, and the University Of Arizona. The transferability of a course does not indicate directly how the course will apply to meet requirements for specific programs of study. [AZ Transfer Course Equivalency Guide](#)

(U.S.) AND INTERNATIONAL INSTITUTIONS

The Maricopa Community Colleges have transfer agreements with accredited U.S. universities and colleges as well as international institutions that have been approved by the Ministry of Education. These partnerships are formalized through District-Wide memorandums of understanding and articulation agreements, and are designed to help students maximize the applicability of transfer credit at the transfer institution. To access a list of institutions with which Maricopa has established articulation agreements, visit: [Maricopa University Partner List](#)

TIME LIMIT FOR TRANSFER COURSEWORK

Students should be aware other colleges and universities may have age of credit limits on certain coursework to be used in transfer. Students should refer to the policy of their intended transfer institution regarding time limits for transfer coursework.

SHARED UNIQUE NUMBERING (SUN) SYSTEM COURSE INFORMATION

Senate Bill 1186, which passed into law in 2010, mandated the creation of a shared numbering system for public college and university courses in Arizona to identify courses that transfer from community colleges to universities toward a baccalaureate degree. The Shared Unique Number (SUN) system is a college course numbering system designed to help students locate and enroll in courses that have direct equivalents for transfer among Arizona's public community colleges and three state universities. However, even if a course at the Maricopa Community Colleges is not designated as a SUN course, it may still transfer to other Arizona public institutions with a direct equivalent as per the Course Equivalency Guide on [AZTRANSFER.COM](#). The SUN system does not address the applicability of courses. students are encouraged to work with an academic advisor on course selections. To access a list of SUN courses, visit [SUN](#)

AMENDED through the Administrative Regulation Approval Process, June 12, 2023

ADOPTED through the Administrative Regulations Approval Process, June 4, 2019

2.9 Veterans Services

The Maricopa Community Colleges' Veterans' Services offices act as liaisons with the Department of Veterans Affairs (VA) and the state approving agency. Each program must be approved by the state approving agency. Students may be eligible to receive educational benefits if they are registered in courses that apply to the student's approved programs.

Application forms, counseling, advisement, tutoring, and priority enrollment are available for students who are eligible for veteran's educational benefits. Students applying for veteran's educational benefits should allow eight to ten weeks before receiving benefits. The amount of benefits awarded is determined by the Department of Veterans Affairs, and is based on the number of credit hours or clock hours for which a student is enrolled and the length of the enrollment period for each course.

Prior to enrolling, eligible service members receiving tuition assistance must speak with an Education Services Officer (ESO) or counselor within their military service branch/ organization.

Veteran's benefits available:

- Chapter 30 - Montgomery GI Bill®
- Chapter 31 – Veteran Readiness and Employment (VR&E)
- Chapter 32 - VEAP Program
- Chapter 33 - Post 9/11 GI Bill® & Transfer of Eligibility to Dependents (TOE)
- Chapter 35 - Survivors and dependents of deceased/100% disabled veterans
- Chapter 1606 - Montgomery GI Bill®, Selected Reserve
- Chapter 1607 - REAP Reserve Educational Assistance Program

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill>.

Covered individuals (as defined in 38 U.S.C. § 3679) utilizing Chapter 33 or Chapter 31 VA education benefits may attend or participate in a program of study during the period beginning on the date the individual provides the educational institution a Certificate of Eligibility (COE), a Statement of Benefits obtained from eBenefits, or a purchase order for Chapter 31, and ending on the earlier of the following dates:

1. The date upon which payment from the VA is made to the institution;
2. 90 days after the date the institution certified tuition and fees following the receipt of the Certificate of Eligibility.

No penalty, including the assessment of late fees, and/or the denial of access to classes or other institutional facilities will be imposed on the individual due to the delayed disbursement funding from VA under Chapter 31 or 33.

It is the student's responsibility to notify the office that serves veterans at their campus regarding any change in enrollment, address, program of study, enrollment at another institution, or any other change that may impact their veteran's educational benefits.

Those students receiving benefits must follow the VA academic progress policy to continue to receive benefits.

Department of Veterans Affairs regulations require that all persons using any type of veteran educational assistance program make satisfactory academic progress toward achievement of their educational objective (program of study). A student who does not meet the minimum standards of 2.0 upon completion of 12 or more credit hours will be placed on probation, at which point the student will have no more than two semesters in which to improve academic standing to acceptable. At this point, if satisfactory academic progress has not been demonstrated, veteran educational benefits will be terminated. Benefits may be resumed when the student raises the cumulative grade point average to the required minimum standards or demonstrates the ability to meet these standards through the approval of a written appeal. For appeal procedures, contact the office that serves veterans at your campus.

For additional details and information regarding veteran's educational benefits, contact the office that serves veterans at your campus.

Distance Learning:

The course content and competencies for distance learning classes are the same as courses offered in-person or in a hybrid format. The courses offered in this format lead to completion of MCCC degrees and/or certificates of completion.

Colleges use Learning Management Systems (LMS) like Canvas and RioLearn for online offerings. These portals are used for both hybrid and online classes. Students must use their Maricopa Enterprise ID and password to access the portal. The link to the portal is provided on the college home page and on www.maricopa.edu/students, the district's website for student access to Maricopa tools. Maricopa-assigned student email addresses are used for communicating with students within the tools. Students are also able to communicate with the instructor through the LMS, via Maricopa e-mail or by phone.

Externship Programs:

The Maricopa Community College's official District course descriptions for credited experiential learning opportunities (Internships, Externships, Practicums, and Clinicals) state the amount of hours required in order for a student to receive college credit. The descriptions also indicate if a maximum amount of credit is allowable for any given experiential learning opportunity. Each course that includes an experiential learning opportunity is assigned a Maricopa Instructor of Record who is responsible for ensuring that the student completes the required hours and assignments in order to receive credit. Additionally, the instructor works extensively with a site supervisor to ensure that the student is making satisfactory progress and meeting the time requirements. The experiential credit process for the student includes the specific course details and learning outcomes, how hours will be tracked, and what is required for grading and course completion. The instructor submits the final grade for the experience. Maricopa's experiential learning process is in compliance with CFR 38 21.4265

A complete list of internship courses, along with course objectives, can be found on the Maricopa Community College's District – [Center for Curriculum and Transfer Articulation](http://www.maricopa.edu/center-for-curriculum-and-transfer-articulation) website, located at: <https://curriculum.maricopa.edu/transfer-and-articulation>

Prior Credit Evaluation:

Department of Veterans Affairs requires that all persons using any type of veteran's educational assistance must have all prior education and training evaluated. Students will be required to request transcripts from all prior institutions, including military training. Without all prior institutions and military training, veteran educational assistance may not be certified. Transcripts will be evaluated and credit will be granted, as appropriate.

TECHNICAL CHANGE made to align with Administrative Regulation 2.9, April 11, 2022. Original Direct Chancellor Approval, April 17, 2018

AMENDED through Direct Approval by the Chancellor, April 14, 2021

AMENDED through Direct Approval by the Chancellor, October 21, 2020

AMENDED through Direct Approval by the Chancellor, March 6, 2019

AMENDED through Direct Approval by the Chancellor, September 17, 2018

AMENDED through Direct Approval by the Chancellor, April 17, 2018

AMENDED through the Administrative Regulations Approval Process, June 5, 2017

AMENDED through the Administrative Regulations Approval Process, May 16, 2016

SCHOLASTIC STANDARDS

2.3.1 Academic Load

A credit hour is defined as an amount of work represented in course competencies and verified by evidence of student achievement that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester hour of credit, or the equivalent amount of work over a different amount of time, or at least an equivalent amount of work for

other academic activities, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours. In accordance with common practice in higher education, instruction representing a credit hour is typically delivered in a 50 minute class period.

Students carrying at least twelve (12) credit hours will be considered full-time students for the fall and spring semesters. Three-quarter-time is 9 - 11.9 credit hours. Half-time is 6 - 8.9 credit hours. Fewer than six (6) credit hours is considered less than half-time. Academic load for summer and special terms may be defined differently. Contact the Admissions and Records Office/Office of Student Enrollment Services for clarification. As provided in the Reduced Course Load administrative regulation, a student may be deemed a full-time student carrying fewer than twelve credit hours pursuant to an accommodation of a disability.

Courses may vary in length, and begin and end throughout the year. A credit hour indicates the value of an academic credit. Standards for the awarding of credit hours may be time based or competency based. To obtain credit, a student must be properly registered and must pay fees for the course. The fall and spring semesters are typically sixteen (16) weeks in length. Summer sessions are typically five or eight weeks in length.

Students desiring to take more than eighteen (18) credit hours must obtain approval from the designated college official. Ordinarily, only students with a grade point average of 3.0 or higher for the preceding semester or first semester students who were in the upper quarter of their high school graduating class are permitted to carry more than eighteen (18) credit hours.

Students participating in extra-curricular or co-curricular activities or receiving financial assistance may be required to maintain a specified minimum academic load.

Students who are working, have considerable extra-curricular or co-curricular activities, or have been reinstated from academic suspension/probation should plan their academic load accordingly.

Schedule Changes

Students may change their schedule by following the designated procedures at their college of enrollment. It is the student's responsibility to notify the college if he/she will no longer be attending the class (see [Administrative Regulation 2.3.6 Withdrawal](#) for Withdrawal Procedures).

TECHNICAL CHANGE, July 11, 2023

2.3.2 Attendance

- Only persons who are registered for a class at any of the Maricopa Community Colleges may attend that class. Attendance requirements are determined by the course instructor. Students who do not meet the attendance requirement as determined by the course instructor may be withdrawn.
- Students who fail to attend the first scheduled class meeting, or to contact the instructor regarding absence before the first scheduled class meeting may, at the option of the instructor, be withdrawn.
- At the beginning of each course, each faculty member will provide students with written attendance requirements. It is the student's responsibility to consult with the instructor regarding official or unofficial absences. Absences begin to accumulate with the first scheduled class meeting.
- Students bear the responsibility of notifying the Admissions and Records Office/Office of Student Enrollment Services when they discontinue studies in a course or at the college. Please refer to [Administrative Regulation 2.3.6 Withdrawal](#) for Withdrawal Procedures.

1. Official Absences

- A. Official absences are those that occur when students are involved in an official activity of the college, i.e., field trips, tournaments, athletic events, and present an official absence excuse form. Absences for such events shall not count against the number of absences allowed by an instructor or department. Students who must miss a class for an official reason must obtain an official absence verification card from the appropriate vice president or

- designee and present it to the appropriate instructor(s) before the absence. Prior arrangements must be made with each instructor for make-up work. If prior arrangements have been made, the student will not be penalized.
- B. Other official absences include jury duty and subpoenas. Appropriate documentation will be required. Prior arrangements must be made with each instructor for makeup work. If prior arrangements have been made, the student will not be penalized.
 - C. In the event of military commitments. Absences for periods of up to one week will not be counted against the number of absences allowed by an instructor or department. The student is required to provide appropriate documentation of the specific orders, length of assignment and location. Prior notification must be initiated with each instructor to discuss make-up work. If the length of the absence will be longer than one week, the instructor and the student will determine whether there is sufficient opportunity for the student to make up the work. If it is determined that the length of absence for the military commitment provides an undue hardship on the student's ability to make up the assignments, he or she will be provided an opportunity to request an incomplete grade or drop the class or, in the case of open-entry classes, the opportunity to request an extension.
 - D. In the event of the death of an immediate family member, absences for periods of up to one week will not be counted against the number of absences allowed by an instructor or department. Students should contact instructor(s) as soon as possible to arrange for make-up work. Appropriate documentation will be required (for example, a copy of the obituary or funeral program). In specialized programs that require clinical rotations, this regulation may not apply.

2. Religious Holidays

Students shall have the right to observe major religious holidays without penalty or reprisal by any administrator, faculty member or employee of the Maricopa Community Colleges. Absences for such holidays shall not count against the number of absences allowed by an instructor or department, provided the student has utilized the Religious Accommodation Procedure outlined in ND-4 of the Administrative Regulations Appendices. The Procedure and Religious Accommodation form may be found at [ND-4](#). As outlined in the ND-4 Religious Accommodation Procedure, to the extent possible, requests must be made at least two (2) weeks before the requested absence from class due to religious holiday or day of observance by providing the faculty member with the [Religious Accommodation Request Form](#). Once a religious accommodation is granted, the student must make arrangements with each instructor for make-up work.

3. Excused Military Absences

A member of the National Guard of this state or any other state or of the United States Armed Forces Reserves who is a student at an institution of higher education in this state and who is ordered to either state or federal reserve component duty or a person who is the spouse of a member of the National Guard of this state or any other state or the United States Armed Forces Reserves, who is a student at an institution of higher education in this state and whose spouse is ordered to either state or federal reserve component duty, whether the member or spouse is attending class in person or online and whether the member is stationed in or outside of this state, may do any of the following:

- A. Withdraw from one or more courses for which tuition and fees have been paid. the tuition and fees must be credited to the student's account at the institution. Any refunds are subject to the requirements of the state or federal financial aid programs of origin. The student may not receive credit for the courses and may not receive a failing grade, an incomplete or another negative annotation on the student's record and the student's grade point average may not be altered or affected in any manner because of the student's withdrawal under this subsection.
- B. Depending on when the member is ordered to either state or federal reserve component duty and depending on the individual student's needs, receive a grade of incomplete and be allowed to complete the course if the course is being offered at the time to other students on release from reserve component duty under the institution's standard practice for completion of incompletes.
- C. In accordance with any academic unit or institution of higher education requirements or in compliance with accreditation or certification standards, when applicable, continue and complete the course for full credit. Class sessions the student misses due to state or federal reserve component duty must be counted as excused absences and may not be used in any way to adversely impact the student's grade or standing in the class. Any student who selects this option is not automatically excused from completing assignments due during the period

the student or student's spouse is performing state or federal reserve component duty. A letter grade or a grade of pass may be awarded only if the faculty member teaching the course determines that the student has completed a sufficient amount of work and has demonstrated sufficient progress toward meeting course requirements to justify the grade.

D. Withdraw and be readmitted with the same academic status and enrolled as a student at the institution, without penalty or redetermination of admission eligibility, within one year after the release of the student or student's spouse from state or federal reserve component duty.

1. A member of the National Guard of this state or any other state or of the United States Armed Forces Reserves who is a student at an institution of higher education in this state, who is ordered to either state or federal reserve component duty and as a result of that service or follow-up medical treatment for an injury incurred during that service, misses any test, examination, laboratory, presentation or class day on which a written or oral assignment is due or other event on which a course grade or evaluation is based may make up the test, examination, laboratory, presentation, class or event without prejudice to the final course grade or evaluation. The makeup activity must be scheduled after the student's return from reserve component duty and after a reasonable amount of time for the student to prepare for the test, examination, laboratory, presentation, class or event.
2. For class sessions a student described in subsection a of this section misses due to state or federal reserve component duty, the institution of higher education shall excuse the student's absences and not use these excused absences in any way to adversely impact the student's grade or standing in class.
3. If the faculty member teaching the course determines that the student has completed a sufficient amount of work and has demonstrated sufficient progress toward meeting course requirements to justify the grade without making up the test, examination, laboratory, presentation, class or event, a grade may be awarded without the makeup activity and the missed test, examination, laboratory, presentation, class or event may not be used in any way to adversely impact the student's grade or standing in the class.
4. The protections in this section may be invoked as follows:
 - a. If the state or federal reserve component duty is known in advance, the student must submit evidence documenting the state or federal reserve component duty to the faculty member teaching the course early in the semester or as soon as practicable before the missed class, assignment or examination.
 - b. If the state or federal reserve component duty is not known in advance, the student is responsible for providing evidence of the state or federal reserve component duty to the faculty member teaching the course as soon as practicable after the missed class, assignment or examination.
 - c. The student or an appropriate officer from the military organization in which the student or student's spouse will be serving must give written notice that the student or student's spouse is being or has been ordered to reserve component duty as prescribed in this section.
 - d. On written request from the institution of higher education, the student shall provide written verification of service.
5. To readmit a person with the same academic status means that the institution admits the student to the same program to which the student was last admitted by the institution or, if that exact program is no longer offered, the program that is most similar to that program, unless the student requests or agrees to admission to a different program, per CFR 34 668.18 (a)(2)(iii)(A).

TECHNICAL CHANGE, June 27, 2023

AMENDED by Direct Chancellor Approval, September 14, 2022

AMENDED through the Administrative Regulations Approval Process, November 5, 2019

2.3.3 Grading

1. Policy

It is the policy of the Maricopa Community Colleges that a grade will be assigned at the conclusion of the course. Official grades are available on designated college web sites.

Grade Key

Grade	Value	Grades Calculated In Gpa	Considered An Attempt	May Be Repeated
A	4.0 - Excellent	Yes	Yes	No
B	3.0 - Above Average	Yes	Yes	Yes
C	2.0 - Average	Yes	Yes	Yes
D	1.0 - Below Average	Yes	Yes	Yes
F	0.0 - Failing	Yes	Yes	Yes
I	Incomplete	No	No	N/A
IP	Course In Progress	No	No	N/A
N	Audit	No	No	N/A
W	Withdrawn, Passing	No	No	N/A
Y	Withdrawn, Failing	Yes	Yes	Yes
P*	Credit	No	Yes	Yes
Z	No Credit	No	Yes	Yes

*A "P" is judged to be equivalent to a grade of "C" OR HIGHER.

Attempt definition: a student is enrolled in a class and receives a grade of A,B,C,D,F, Y, P, or Z.

Students who wish to attempt a course after the fourth time will need assistance from the Admissions & Records/Enrollment Services Office to enroll.

If a student has been awarded financial aid, veterans benefits, or other military tuition assistance programs, scholarships, or grants they should check with those offices about repeating classes.

The student is responsible for any tuition and fees associated with each attempt.

NOTE: Grading errors discovered after the sixty (60) day expiration date can be corrected if they have been researched by the Director of A&R/Enrollment Services and the Instructor of Record or the Department/Division Chair.

2. Incomplete Grade

- Students who are doing acceptable work may request an incomplete grade "I" if they are unable to complete the course requirements by the end of the term because of illness or other extenuating circumstances. If the request is approved by the instructor, he or she shall define, in a written/electronic contract, how the course will be completed.
- Students must complete the requirements within the time period agreed to--maximum time allowed is seven (7) months from the last date of class in which the grade of incomplete was assigned. Students who do not complete the requirements within the approved time period will have their grade recorded in accordance with the written contract. Students should NOT reregister for the course to complete the contract.
- A student's eligibility for financial aid may be jeopardized by an incomplete grade. Refer to the Standards of Satisfactory Academic Progress for details.

3. Repeating a Course/Improving a Grade

Students who wish to improve their GPA may repeat a course within the Maricopa Community Colleges up to three times after the initial attempt. (A “W” is not considered an attempt.) Students planning to repeat a course should seek advisement prior to enrolling. The lower grade(s) and credit for repeated courses taken at the same college will automatically be excluded from the grade point calculation.

However, if the course(s) were taken at a different Maricopa Community College, the student must submit a request for the lower-graded course to be excluded from the GPA. The request can be submitted to the Admissions and Records Office at any of the Maricopa Community Colleges that the student attended.

Students receiving federal financial assistance and/or benefits should follow up with the Office of Financial Aid and/or Veterans’ Services regarding their policies for repeated courses. An official student transcript is a permanent academic record issued by the college registrar. It displays all courses taken for credit within the Maricopa Community Colleges District and includes all grades received. Unlike an unofficial transcript, it is signed and dated by the college registrar and displays the college seal of the Maricopa College issuing the official transcript.

Check individual courses and programs for exceptions.

4. Credit/No Credit Courses (P/Z)

- A. Some courses may be taken under a credit/no credit grading system. These courses carry grades of P (credit, equivalent to a grade of C or higher) or Z (no credit) and are not computed in the student's grade point average. Credits earned with a grade of P may be counted toward graduation with the exception of AGEC (Arizona General Education Curriculum).
- B. The prescribed time limits are for full-semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See "Important Deadlines for Students".
- C. In courses with credit/no credit (P/Z) grading, the student may request standard grading (A, B, C, D, F), within fourteen (14) days including the date of the first class meeting. The instructor must immediately notify the Admissions and Records Office/Office of Student Enrollment Services.
- D. In courses with standard grading (A, B, C, D, F), the instructor determines if the credit/no credit option is available. If the option is available, the student must obtain the permission of the instructor. The instructor must notify the Admissions and Records Office/Office of Student Enrollment Services within fourteen (14) days including the day of the first class meeting.
- E. It is the student's responsibility to verify the transferability of credit/no credit courses. Some universities place a limitation on the number of credit/no credit courses that can be transferred.

Advisory note: Some institutions outside the Maricopa Community Colleges may translate the Z grade as failing.

5. Audit Courses

- A. Auditors are those who enroll in a course for the sole purpose of obtaining information; they receive no credit, grades, homework, or tests. If an auditor wishes to earn credit, he or she must change from audit status to credit status within the first week. If a student wishes to audit a course for which he or she is enrolled for credit, the change must be made within the first five (5) weeks of a semester. Auditors are subject to the same attendance policies as other students and must meet the same prerequisite requirements or obtain approval of the instructor. See the fee schedule for charges. Financial aid is not available for audited courses.
- B. The prescribed time limits are for full-semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly and appear in the "Important Deadlines for Students."

6. Important Deadlines for Students (See [Appendix S-12](#))

Class Length	Deadline for Students to Withdraw with Guaranteed Grade of W	Deadline for Students to Withdraw from a Course (Instructor Signature Required)	Deadline for Students to Request Complete Withdrawal	Deadline to Change Type of Grading (A-F to P/Z, or P/Z to A-F)	Deadline to Change From Audit Grade to Credit Grade	Deadline to Change from Credit Grade to Audit Grade
One Week or Less (1 to 7 days)	1 st Day of Class	1 st Day of Class or Prior to the Last Day of Class	1 st Day of Class or Prior to the Last Day of Class	1 st Day of Class	1 st Day of Class	1 st Day of Class

Two Weeks (8 to 14 days)	3 rd Calendar Day	6 th Calendar Day	6 th Calendar Day	1 st Day of Class	1 st Day of Class	3 rd Calendar Day
Three Weeks (15 to 21 days)	6 th Calendar Day	12 th Calendar Day	12 th Calendar Day	2 nd Calendar Day	1 st Day of Class	5 th Calendar Day
Four Weeks (22 to 28 days)	9 th Calendar Day	17 th Calendar Day	17 th Calendar Day	3 rd Calendar Day	2 nd Calendar Day	7 th Calendar Day
Five Weeks (29 to 35 days)	12 th Calendar Day	23 rd Calendar Day	23 rd Calendar Day	4 th Calendar Day	2 nd Calendar Day	9 th Calendar Day
Six Weeks (36 to 42 days)	14 th Calendar Day	29 th Calendar Day	29 th Calendar Day	5 th Calendar Day	3 rd Calendar Day	11 th Calendar Day
Seven Weeks (43 to 49 days)	17 th Calendar Day	35 th Calendar Day	35 th Calendar Day	5 th Calendar Day	3 rd Calendar Day	12 th Calendar Day
Eight Weeks (50 to 56 days)	20 th Calendar Day	41 st Calendar Day	41 st Calendar Day	6 th Calendar Day	3 rd Calendar Day	15 th Calendar Day
Nine Weeks (57 to 63 days)	23 rd Calendar Day	46 th Calendar Day	46 th Calendar Day	7 th Calendar Day	4 th Calendar Day	17 th Calendar Day
Ten Weeks (64 to 70 days)	26 th Calendar Day	52 nd Calendar Day	52 nd Calendar Day	8 th Calendar Day	4 th Calendar Day	19 th Calendar Day
Eleven Weeks (71 to 77 days)	29 th Calendar Day	58 th Calendar Day	58 th Calendar Day	9 th Calendar Day	5 th Calendar Day	21 st Calendar Day
Twelve Weeks (78 to 84 days)	32 nd Calendar Day	63 rd Calendar Day	63 rd Calendar Day	10 th Calendar Day	5 th Calendar Day	23 rd Calendar Day
Thirteen Weeks (85 to 91 days)	35 th Calendar Day	70 th Calendar Day	70 th Calendar Day	10 th Calendar Day	5 th Calendar Day	25 th Calendar Day
Fourteen Weeks (92 to 98 days)	38 th Calendar Day	76 th Calendar Day	76 th Calendar Day	11 th Calendar Day	6 th Calendar Day	27 th Calendar Day
Fifteen Weeks (99 to 105 days)	41 st Calendar Day	82 nd Calendar Day	82 nd Calendar Day	12 th Calendar Day	6 th Calendar Day	28 th Calendar Day
Sixteen Weeks or more (106 or more days)	End of the 7 th week	Two weeks before the last class period	Two weeks before the last class period	Within 14 days including the first class period	Within first week of class	Within first five weeks of class
<i>Deadlines are based on calendar day and begin with the first day of class.</i>						

AMENDED through the Administrative Regulations Approval Process, June 12, 2023

AMENDED through the Administrative Regulation Approval Process, May 24, 2022

AMENDED through the Administrative Regulations Approval Process, June 30, 2020

AMENDED through the Administrative Regulations Approval Process, June 4, 2018

AMENDED through the Administrative Regulations Approval Process, June 5, 2017

2.3.4 Academic Standing, Warning, and Probation

Academic standing is defined by the student's GPA. The GPA is calculated by dividing the number of grade points earned in courses that assign letter grades by the number of credits attempted.

The purpose for the academic standing, warning and probation policies is to establish a formal process through which the faculty, staff, and administration at the Maricopa Community Colleges may identify and provide support to students who experience academic difficulty and fall below a cumulative grade point average (GPA) of 2.0. The combined cumulative GPA includes computation of grades for both Maricopa and posted transfer courses. It is not intended to discourage or penalize students. Rather, this process reflects the commitment of the college's faculty, staff, and administration to provide students with assistance and support to ensure success in achieving their educational goals.

Academic Good Standing

Students in academic good standing have a GPA of 2.0 or higher.

Academic Warning

Students who do not achieve a minimum cumulative GPA of 2.0 after completion of their first term of study are placed on academic warning. If a student does not achieve the minimum cumulative GPA of 2.0 after one semester on academic warning, the student will be placed on probation for at least one additional term.

Academic Probation

If a student's minimum cumulative GPA falls below 2.0 in a term that is not the student's first term, the student will be placed on probation. Students on academic probation may take no more than twelve (12) credit hours per semester unless approved by a college Counselor and the designated Academic Dean.

A student on academic probation who fails to raise the cumulative grade point average 2.0 will be placed on continued probation and may be limited to taking six (6) credit hours.

Students who receive an academic warning or who are placed on academic probation may be required to meet with an Academic Advisor or other designated intervention team members or engage in other intervention strategies prior to enrolling in courses to discuss an academic improvement plan which may include referrals to academic support, tutoring, and/or student support services to help them achieve good standing. Students using federal financial aid, VA education benefits, or active duty tuition assistance should contact their Financial Aid office and Veterans Services office to review possible impacts to their funding. See [S-5 Student Financial Assistance](#).

Also See:

[2.3.11 Academic Misconduct](#)

AMENDED through the Administrative Regulations Approval Process, June 12, 2023

2.3.5 Instructional Grievance Process

A student who feels that he or she has been treated unfairly or unjustly by a faculty member with regard to an academic process such as grading, testing, or assignments, has the right to appeal according to the approved procedures.

The appeal process for grades must be initiated no later than sixty (60) calendar days from the date the grade was issued. Steps outlining the process are available in [Appendix S-6](#).

Appendix S-6: Instructional Grievance Process

A student who feels that he/she has been treated unfairly or unjustly by a faculty member (full-time or part-time) with regard to an academic process such as grading, testing or assignments, shall discuss the issue first with the faculty member involved. This conference shall be requested by the student within fifteen (15) working days from the time the student knew or reasonably should have known about the unfair or unjust treatment. If the grade issue is the final grade, [Article 20.7.6](#) of the Faculty Agreement governs.

This instructional grievance process should not be utilized in a case in which a student feels he/she has experienced discrimination. If the student feels that he/she has experienced discrimination on the basis of race, color, religion, sex, gender identify, national origin, citizenship status (including document abuse), gender, age, disability, veteran status, genetic information, or sexual orientation, the student should refer to the Discrimination Complaint Procedures for Students as administered by the Vice President for Student Affairs.

Steps for students to follow:

1. If, within ten (10) working days of the request for the conference with faculty member, the problem is not resolved or the faculty member has been unable to meet with the student, the student may continue the process by filing a written grievance with the Department/Division Chairperson and appropriate administrative officer at the college/center. This written grievance must be filed within ten working days following the previous deadline. The written grievance will be given to the faculty member five days before any official meetings are convened.
2. Upon receipt of a written grievance, the Department/Division Chair or appropriate college administrative officer will work with the parties in an attempt to resolve the conflict. The faculty may ask that the College Faculty Senate President be in attendance. Every attempt will be made to maintain confidentiality during this process. A faculty

member will not be required to respond to a grievance which is not in writing and which, when appropriate, did not have specific documentation including dates, times, materials, etc. The written grievance will be made available to the faculty member.

3. If the grievance is not resolved at this level within ten working days, the student should forward to vice president of academic affairs or designee, a copy of the original written grievance with an explanation regarding action taken at each prior level. The dean of instruction or appropriate college/ center administrative officer will meet with the student, faculty member, the College Faculty Senate President if requested by the faculty member, and Department/Division Chair and attempt to resolve the issues. This level will be the final step in any grievance process regarding grades.
4. If the grievance, other than those concerning grades, is not resolved by the vice president of academic affairs or designee, it may be forwarded in writing by the student to the college president for final resolution. The college president or designee will issue a final written determination in the grievance process.
5. Instructional grievances are resolved at the college level. The district office is not an avenue of appeal for the instructional grievance process.

Note: The grievance process for grades must be initiated no later than sixty (60) calendar days from the date the grade was issued.

AMENDED technical change made to align with Article 20.7.6 of the Faculty Agreement, August 9, 2021

2.3.12 Non-Instructional Complaint Resolution Process

A student who feels that he or she has been treated unfairly or unjustly by any employee with regard to a non-instructional process such as a student or administrative services has the right to file a formal and written complaint according to the approved procedures. See [Appendix S-8](#).

Appendix S-8: Non-Instructional Complaint Resolution Process

A student who feels that he or she has been treated unfairly or unjustly by any employee with regard to a non-instructional process such as a student or administrative services has the right to file a formal and written complaint according to the approved procedures. Steps for students to follow:

1. Discuss the issue with the employee involved. The student should request this conference within fifteen (15) working days from the time the student knew or reasonably should have known about the unfair or unjust treatment.
2. If, within ten (10) working days of the request for the conference with the employee, the problem is not resolved or the employee has been unable to meet with the student, the student may continue the process by filing a written complaint with the appropriate supervisor of the employee where authority exists to take corrective action. This written complaint must be filed within ten (10) working days following the previous deadline. The written complaint will be given to the employee five (5) working days before any official meetings are convened.
3. Upon receipt of a written complaint, the appropriate supervisor will work with the parties in an attempt to resolve the conflict. Every attempt will be made to maintain confidentiality during this process. An employee will not be required to respond to a complaint which is not in writing and which, when appropriate, does not have specific documentation including dates, times, actions, supporting documents, etc. The written complaint will be made available to the employee.
4. If the complaint is not resolved at this level within ten (10) working days, the student should forward to the Vice President of Student Affairs or Designee, a copy of the original written complaint with an explanation regarding action taken at each prior level. The dean and/or associate dean will meet with the student, the employee, and the relevant supervisor and attempt to resolve the issues.
5. If the associate dean and/or dean do not resolve the complaint, the student may forward it in writing to the college president for final resolution. The college president or designee will issue a final written determination in the complaint process.

2.3.6 Withdrawal

The Office of Admissions and Records/Office of Student Enrollment Services provides information about the withdrawal process. To withdraw from a course or courses from the college, students must follow approved procedures as outlined below. The official date of withdrawal is the date the withdrawal is received in the Admissions and Records Office/Office of Student Enrollment Services. Withdrawal from a course (or courses) does not automatically qualify for a refund of

tuition and fees. Tuition and fee refunds will be calculated based on [2.2.10 Refund Policy](#) or reviewed under the refund appeal process. Never attending is not an allowable refund exception or an excuse of the debt incurred through registration. Please see the refund policy.

TYPES OF WITHDRAWALS

STUDENT WITHDRAWAL: Is a change in the student's course schedule where one or more courses are withdrawn before the end of the term.

FACULTY WITHDRAWAL: Occurs when a faculty member withdraws a student.

COMPASSIONATE WITHDRAWAL: Is considered when a sudden emergency or severe change in personal circumstances, result in an inability to continue/complete courses. The student provides a written statement of their situation and any documentation to support this request if applicable (e.g. death certificate, accident report, etc.).

MEDICAL WITHDRAWAL: Is considered when there is an unexpected serious illness or injury that prevents the student from continuing with their course or courses. The medical withdrawal policy covers physical health and mental health difficulties. All applications for compassionate and medical withdrawal that are submitted by the student, or on their behalf, require thorough and credible documentation. An approved medical/compassionate withdrawal request will result in a special note line indicating the nature of the withdrawal on the student's unofficial transcript. Medical and compassionate withdrawal applications and supporting documents are retained for at least five years and filed securely. If a request for refund has also been made, further assessment is done to determine eligibility.

LEAVE OF ABSENCE: Assists and encourages students to return and graduate after an absence due to military deployment, service on an official church mission, or with a foreign aid service of the federal government. If your absence is due to this or any other reason, you may be eligible to return to a Maricopa College through a quick re-entry process, which permits students to enroll without submitting a new application if they previously attended a maricopa college. If the leave of absence is due to military commitments, students should also reference [Administrative Regulation 2.2.3\(3\)](#).

WITHDRAWAL OF FINANCIAL AID STUDENTS

Withdrawing can have implications for certificate or degree completion, future registration, financial aid eligibility, and return of financial aid funds. In accordance with federal regulations ([34CFR 668.22](#)), a student may be required to repay federal financial aid funds if they completely withdraw or are withdrawn, or fail to earn a passing grade from all courses during a semester. This could affect a student's ability to receive financial aid in the future at Maricopa or any school.

Prior to submitting a request for any withdrawal or leave of absence, students are encouraged to meet with a college advisor about the potential impact related to the student's academic progress. Students using financial aid, VA education benefits, or active duty tuition assistance should contact their Financial Aid and Veterans Services offices to review possible impacts to their funding.

WITHDRAWAL PROCEDURES

WITHDRAWAL FROM SPECIFIC COURSES

A student may officially withdraw from specific courses in the following ways:

- The prescribed time limits are for full semester courses. Time limits for courses which meet fewer than sixteen (16) weeks are adjusted accordingly. See important deadlines for students. Failure to file an official withdrawal form may result in failing grades and responsibility for course tuition and fees. Tuition and fee refunds will be processed based on the [2.2.10 Refund Policy](#).

- Through the 7th week*, a student may initiate an official withdrawal from any course by completing the withdrawal process online using the student self service system or by submitting a course withdrawal form to the Admissions and Records Office/Office of Student Enrollment Services in accordance with the published deadlines. A grade of W (withdrawn, passing - not computed in the grade point average) will be assigned.
- After the 7th week, a student must initiate a withdrawal request with the faculty member. If, after consultation with the student, the faculty member approves the request, a grade of W (withdrawn, passing - not computed in the grade point average) or Y (withdrawn, failing - computed in the grade point average as a failing grade) will be assigned. If the request is not approved, the student will remain in the course.

A student has the right to appeal a withdrawal decision according to the approved procedures. Steps outlining the process are available in [Appendix S-6](#).

COMPLETE WITHDRAWAL FROM COLLEGE

Students electing to withdraw from the college must contact the Admissions and Records Office/Office of Enrollment Services no later than two weeks* before the end of the last class meeting and may be required to file a written request.

A grade of W will be assigned in all courses for students who withdraw by the end of the 7th week* of classes. Withdrawals completed after this time will result in a grade of W (withdrawn, passing – not computed in the grade point average) or Y (withdrawn, failing – computed in the GPA as a failing grade).

*The prescribed time limits are for full semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See [Important Deadlines for Students](#). Failure to file an official withdrawal form may result in failing grades and responsibility for course tuition and fees. Refunds will only be processed within the [Refund Period](#).

FACULTY WITHDRAWAL PROCEDURES

A faculty member has the option of withdrawing a student who has accumulated unofficial absences in excess of the number of times indicated in that faculty member's attendance policy in the course syllabus (See AR 2.3.2). A grade of W (withdrawn passing - not computed in gpa) or a grade of Y (withdrawn failing - 0 grade points per credit hour) may be assigned in accordance with the course syllabus. Faculty members electing to withdraw students must record the withdrawal through the online system, including last date of attendance and withdrawal code. Students withdrawn for excessive absences may be reinstated only with the approval of the faculty member. Any impact on attendance that is protected by the exercise of students' rights under ADA/504, Title IX, Title VI, or other recognized law or policy do not count as unexcused absences for the purposes of instructor-initiated withdrawals for lack of attendance/participation. Requests for withdrawals should be referred directly to the college of enrollment.

Also See:

[2.2.10 Refund Policy](#)

TECHNICAL CHANGE, JULY 11, 2023

AMENDED through the Administrative Regulations Approval Process, June 12, 2023

Appendix S-7 Student and Faculty Withdrawal Procedures

Appendix S-7 Student and Faculty Withdrawal Procedures was removed from the Common Pages through the Catalog Common Pages Administrative Regulation Review Process, June 12, 2023. Refer to [Administrative Regulation 2.3.6 Withdrawal](#) for information regarding withdrawal procedures.

AMENDED through the Administrative Regulations Approval Process, June 12, 2023
AMENDED through the Administrative Regulations Approval Process, December 12, 2018
AMENDED through the Administrative Regulations Approval Process, February 23, 2010
AMENDED through the Administrative Regulations Approval Process, August 18, 2008
AMENDED through the Administrative Regulations Approval Process, March 5, 2009

2.3.7 Academic Renewal (“Academic Forgiveness”)

The Maricopa Community Colleges recognize that a student’s academic record may contain grades that are not reflective of more recently demonstrated academic success. Academic renewal (or academic forgiveness) is defined as the process by which a student’s previously recorded substandard credit coursework is excluded from the student’s cumulative grade point average. Through this regulation, a student may request that grades and credits for all courses in which they earned a grade of D, F, or Y are disregarded from the cumulative GPA. Courses earned with a GRADE of A, B, and C will not be excluded and will be calculated into the GPA and total credits completed. A maximum of 24 credits taken at Maricopa are eligible to be disregarded under this policy. The academic renewal policy may be used only once and cannot be revoked once approved.

To apply for academic renewal the student must:

1. Complete the academic renewal request form, attaching unofficial transcripts.
2. Meet with Academic Advisor to discuss the petition, previous coursework, and educational plan.
3. Submit the completed form to the Admissions and Records/Enrollment Services office.

Upon approval, courses with a grade of D, F, or Y will be annotated on the student’s official transcript as excluded from the calculation of their cumulative GPA by academic renewal. All courses will remain on the student’s permanent record to reflect an accurate academic history.

Academic renewal at one of the Maricopa Community Colleges does not guarantee that colleges outside the Maricopa Colleges will accept this action. Acceptance of the adjusted GPA (post academic renewal) is at the discretion of the receiving institution.

FINANCIAL AID/VETERAN BENEFITS AND SATISFACTORY ACADEMIC PROGRESS (SAP)

The academic renewal policy can improve a student's GPA, while reducing their earned credit hours towards degree and certificate requirements, so students must be aware of all consequences before pursuing academic renewal. If interested in financial aid and/or veteran benefits, students are required to meet the financial aid standards of academic progress (SAP) as academic renewal does not replace or override the SAP requirement. Students should follow financial aid SAP appeal procedures outlined in Administrative Regulation 2.3.6 Withdrawal or section 2.9 Veteran Services satisfactory progress standards for regaining aid eligibility.

Additionally, students are encouraged to speak with the Financial Aid and the Veteran Services Offices if they have questions about how fresh start may affect their aid and benefit eligibility.

[For more information on SAP.](#)

Also See:

[2.3.4 Academic Standing, Warning, and Probation](#)

[2.3.6 Withdrawal](#) (Medical/ Compassionate Withdrawal)

[2.3.11 Academic Misconduct](#)

[More on Financial Aid](#)

2.3.8 Honors Opportunities & Recognition

Honors Program

Each of the Maricopa Community Colleges has an honors program. Interested students should contact the college honors coordinator for information about the program requirements and available scholarships, including the Chancellor's, Foundation's, President's Scholarships, and honors achievement award.

President's Honor List

The President's Honor List for each college consists of all students who complete twelve (12) or more credit hours in residence in courses numbered 100 or higher in a given semester with a college semester grade point average of 3.75 or higher. This is a distinct acknowledgement of academic achievement not related to participation in the honors program.

Graduation With Honors

[See General Graduation Requirements \(AR 2.3.9\)](#). This is a distinct acknowledgement of academic achievement tied to graduation. This is a distinct acknowledgement of academic achievement not related to participation in the honors program.

AMENDED through the Administrative Regulations Approval Process, June 12, 2023

2.3.9 General Graduation Requirements

Note: Also see Catalog Under Which a Student Graduates ([AR 2.2.5](#))

Earning a Certificate or Degree

The Maricopa Community Colleges offers certificates and degrees in a variety of areas. Each certificate and degree has specified program requirements for graduation. See certificate and degree information for specific program requirements. It is the student's responsibility to be aware of these requirements.

Candidates for graduation must satisfy the following requirements:

- Complete the minimum number of credits required for the certificate or degree and residency requirements as follows:
 - For bachelor's degrees, at least 30 credits applicable to the degree must be completed at the awarding college.
 - For associate's degrees, at least 15 credits applicable to the degree must be completed at the awarding college.
 - For certificates that are 15 or more credits, at least 6 credits applicable to the certificate must be completed at the awarding college.
 - For certificates that are 14 or fewer credits, at least a quarter of the credits applicable to the certificate must be completed at the awarding college. Exceptions to this institutional residency policy must have prior written approval of the program director, department/division chair, or designee and documentation of rationale and approval included as part of application to graduate.

- All new to Maricopa students who declare a degree, or intend transfer to a college/university, will be required to successfully complete a first-year experience course (FYE101 or FYE103) within the first two semesters at a MCCCDC college.
- Meet the general education, program requirements, and electives for the certificate or degree required. Requirements can be satisfied by MCCCDC coursework, prior learning assessment, and transfer credit. Transfer credit from outside of MCCCDC or from Maricopa Community Colleges not awarding the degree or certificate and prior learning assessment does not count as hours in residence for graduation requirements.
- Earn a minimum grade point average (GPA) of 2.0 on a four-point grading scale in the coursework (100-level and above) used to satisfy degree or certificate requirements (completed in residence and accepted in transfer). Some awards may specify additional GPA requirements.
- Remove all deficiencies (e.g. incomplete grades, missing transcripts, national test results, etc.) on the record to use those courses toward program completion.
- Fulfill any financial obligations with the college.
- File a Petition for Graduation with the Admissions, Records, & Registration /Enrollment Services Office with the exception of auto award programs as outlined further in this policy.
- The following information outlines the Maricopa County Community College District standards for awarding certificates and degrees:
 - Students can only earn one bachelor's degree of any type in the Maricopa Community Colleges
 - Students can only earn one associate of arts (aa) with or without emphasis in the Maricopa Community Colleges
 - Students can only earn one associate of arts, elementary education (AAEE) in the Maricopa Community Colleges
 - Students can only earn one associate of business (ABUS) either general requirements (GR) OR special requirements (SR) in the Maricopa Community Colleges
 - Students can only earn one associate of arts, fine arts (AAFA) with or without emphasis in the Maricopa Community Colleges
 - Students can only earn one associate of science (AS) with or without emphasis in the Maricopa Community Colleges
 - Students cannot earn academic certificates (AC), certificates of completion (CCL), certificates of competency (CCT), and associate of applied science (AAS), and other certificate or degree types with the same academic plan code in the Maricopa Community Colleges
 - Students cannot earn more than one type of AGECE (A, B, and S)

Appeals to this institutional policy may be considered prior to the admission process and/or petition to graduate. See the Admissions, Records, & Registration/Enrollment Services office for a copy of the appeals process.

AutoAward Policy: MCCCDC has an auto-award program that identifies some students who have completed a degree or certificate and never submitted a Petition for Graduation (e.g. [Reverse Transfer](#)). However, this program is limited and students should not depend on it for graduation. The Petition for Graduation should always be submitted when a student is intending to graduate.

Maricopa Nursing Program

For the Maricopa Nursing program, the cumulative GPA for awarding purposes is calculated based on courses required for the degree or certificate taken at any Maricopa campus and includes pre-requisites, co-requisites, and nursing blocks. Students must apply for graduation from the college where they have successfully completed Block 4 of the Associate in Applied Science in Nursing.

Graduation with Honors

All courses used to fulfill graduation and degree requirements, including courses from other institutions are used in the grade point average calculation (GPA) at graduation. Degree-seeking students who have distinguished themselves with GPAs 3.50 and higher are recognized with the following graduation honors:

- 3.50 to 3.69 graduation “with distinction”
- 3.70 to 3.89 graduation “with high distinction”
- 3.90 to 4.0 graduation “with highest distinction”

Certificate programs are not eligible for institutional honors.

AMENDED through the Administrative Regulation Approval Process, June 12, 2023

AMENDED through the Administrative Regulation Approval Process, May 24, 2022

AMENDED through the Administrative Regulation Approval Process, June 24, 2021

AMENDED by Direct Approval from the Chancellor, December 6, 2019

AMENDED through the Administrative Regulations Approval Process, June 5, 2017

2.2.5 Catalog Under Which a Student Graduates

Students maintaining continuous enrollment at any public Arizona community college or university may graduate according to the requirements of the catalog in effect at the time of initial enrollment or according to the requirements

of any single catalog in effect during subsequent terms of continuous enrollment. Students may maintain continuous enrollment whether attending a public community college and/or public university in the state of Arizona.

The rules for maintaining continuous enrollment are:

- A semester in which a student earns course credit will be counted toward continuous enrollment.
- Noncredit courses, audited courses, or courses from which the student withdraws do not count toward continuous enrollment.
- Failure to enroll in three consecutive regular (fall or spring) semesters breaks continuous enrollment; however, enrollment in the intervening summer terms may be used to maintain continuous enrollment status.
- If continuous enrollment is not maintained, the student must fulfill the requirements for graduation specified in the catalog in effect for the academic year in which they re-enroll or any subsequent catalog of their continuous enrollment.
- Students who initially enrolled or re-enrolled during a summer term must follow the annual catalog of the subsequent academic year or any subsequent catalog of their continuous enrollment.

AGE OF CREDIT

In areas of study in which the subject matter changes rapidly, material in courses taken long before graduation may become obsolete or irrelevant. Coursework that is more than ten years old is applicable to completion of certificate and degree requirements at the discretion of the designated

individuals at the college. The college may accept such coursework, reject it, or request that the student revalidate its substance. The ten-year limit on coursework applies except when program accreditation agencies limit the life of coursework to less than eight years. Departments may also require students to satisfy current major requirements rather than major requirements in earlier catalogs, when completing earlier requirements is no longer possible or educationally sound.

*Please note that the above language is guided by statewide practices.

AMENDED through the Administrative Regulations Approval Process, June 24, 2021

2.3.13 Course Substitutions

Course substitutions should only be made in a consistent and transparent manner, according to Administrative Regulation 2.2.4 (Transfer Credit and Prior Learning Assessment Policy), academic policies, and the following guidelines:

Students may seek to have course(s) requirements (including required courses, restricted electives, and prescribed general education requirements) in their declared bachelor's, associate in applied science or certificate program substituted.

Because a substituted course may not be accepted by a transfer institution or meet transfer degree requirements, no course substitutions are allowed in any of the required course areas of the associate in arts or associate in science degrees with emphasis, Associate In Business - Gr, Associate Of Business - Sr, Associate In Arts, Elementary Education, or the Associate In Arts, Fine Arts.

The course being used as a substitution must meet the content and/or spirit of the substituted course in the student's pathway plan (or for date status petitions by reason of disability). If the pathway course satisfies an Arizona General Education Curriculum (AGEC-A, B, or S) requirement, the course substitution must meet that same requirement. Considerations for substitutions should also include impact to satisfying transfer pathway, industry requirements. Substituted courses should provide the skills and knowledge specified by the pathway learning outcomes.

Course substitutions should not be processed for students who have earned fewer than 15 credits (at Maricopa or elsewhere).

To pursue a course substitution, students must obtain a course substitution petition from the Admissions and Records office or Academic Advisor. Substitutions must be approved by the Program Department Chair, Program Division Chair, Academic/Occupational Program Director, or designee and the appropriate Instructional Dean. The Department Chair, Division Chair, or Academic/Occupational Program Director will work with other departments as needed for courses outside of the discipline.

If the credits of a substituted course are fewer than the original requirement, the missing credit hours are not granted by a substitution. Students must complete the minimum credit hours required by the award.

Students are encouraged to seek substitutions prior to enrollment in an intended substitute course. Requests for course substitutions and supporting documentation should be submitted as soon as possible when transcripts are reviewed. For assistance, students should meet with an Academic Advisor specific to the declared transfer emphasis. Students seeking Title IV financial aid and veteran benefits for a course substitution must have the substitution approved and processed prior to registering for the substitute course.

See also, Administrative Regulation [3.5 Course Substitution for Students With Documented Disabilities](#).

AMENDED through the Administrative Regulations Approval Process, June 12, 2023

ADOPTED through the Administrative Regulations Approval Process, June 24, 2021

2.3.10 Transcripts for Transfer

An official student transcript is a permanent academic record issued by the college registrar. It displays all courses taken for credit within the Maricopa Community College District and includes all grades received. Unlike an unofficial transcript, it is signed and dated by the College Registrar and displays the college seal of the Maricopa College ISSUING the official transcript.

The transcript is issued upon written request only. Those students who want to transfer to other institutions of higher education, including other Maricopa Community Colleges, must request their transcript be sent from the Admissions and Records Office/Office of Student Enrollment Services. However, transcripts may be shared within the Maricopa Community College District without the written request of the student in compliance with FERPA.

Official transcripts will not be issued to students having outstanding debts to any of the Maricopa Community Colleges. The release of transcripts is governed by the guidance of the Family Education Rights and Privacy Act of 1974 (see Records Policy in the Student Rights and Responsibilities section of this manual). There is no charge for unofficial transcripts, or for official transcripts sent between Maricopa Community Colleges. See the Tuition and Fee Schedule for charges for other official transcripts.

AMENDED through the Administrative Regulation Approval Process, June 5, 2017

COLLEGE ENVIRONMENT

2.4.4 Sexual Harassment Policy (replaced with Administrative Regulation 5.1.16).

Administrative Regulation 2.4.4 is rescinded effective August 14, 2020. For cases made prior to August 14, 2020, 2.4.4 applies. Administrative Regulation 2.4.4 has been archived for transitional purposes.

RESCINDED by Direct Approval from the Chancellor, August 3, 2020

5.1.8 Policy Prohibiting Harassment

A. Policy

The policy of the Maricopa County Community College District (MCCCD) is to provide an educational, employment, and business environment free of harassment that is based on race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information. Such prohibited harassment includes but is not limited to sexual violence, unwelcome sexual advances, requests for sexual favors, and other verbal and/or physical conduct or communications constituting harassment with regards to race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information as defined and otherwise prohibited by state and federal law.

Employee complaints of harassment must be reported to the District Office of Equal Employment and Opportunity.

Harassment based on race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information violates MCCCD Policy when the conduct is unwelcome, verbal, or physical conduct that is sufficiently severe, or pervasive that it alters working conditions and creates a hostile environment for employees. The unwelcome behavior may be based on power differentials, the creation of a hostile environment, or retaliation for harassment complaints. Harassment by and between any student or employee (paid, unpaid, or contract), is prohibited by this policy.

Due process is afforded any employee accused of harassment. Upon receipt of a complaint, an immediate preliminary review will be conducted to determine if there is reasonable cause to believe the nondiscrimination policy may have been violated. If so, then a prompt, thorough, impartial investigation will be conducted by the authorized administrator, or designee. If the final decision is that harassment occurred, the college will take immediate action to eliminate the hostile environment, prevent its recurrence, and address its effects. Remedies for the complainant will also be sought. Violations of this policy may result in disciplinary action up to and including termination for employees, sanctions up to and including suspension or expulsion for students, and appropriate sanctions against

campus visitors. This policy applies to prohibited conduct that occurs both on and off campus and covers employees, and visitors.

MCCCD affirms its commitment to supporting the academic and personal freedom of all members of the community. In particular, the policy against harassment shall not be applied in a manner that contradicts the principle of academic freedom: Faculty and other members of the community are entitled to freedom in research, and faculty members are entitled to freedom in the classroom to pursue controversial matters related to their disciplines. However, this right to teach controversial material entails the responsibility that it be carried out in a way that would be judged by peers as not violating the District's non-discrimination policy.

Questions about this policy may be directed to the [MCCCD EEO/Affirmative Action Office](#).

B. Examples of Policy Violations

It shall be a violation of MCCCD's Harassment Policy for any employee (paid, unpaid, or contract), student or campus visitor to engage in any unwelcome conduct that is based on race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information. Such as to:

1. Engage in offensive conduct that is sufficiently severe or pervasive to create a work or academic environment that a reasonable person would consider intimidating, hostile, or abusive. Such conduct must be based on race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information.
2. Engage in unwelcome verbal or physical conduct, including intimidation, ridicule, insult, or comments, when the behavior can reasonably be considered to adversely affect the work or academic environment, or an employment decision based upon the employee's acceptance or rejection of such conduct. Such verbal or physical conduct must be based on race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information or on their protected activities under applicable non-discrimination laws and policies,
3. Engage in Sexual Harassment, which includes, but is not limited to:
 - A. Make unwelcome sexual advances to another employee (paid, unpaid, or contract), student or campus visitor;
 - B. Make unwelcome requests for sexual favors, whether or not accompanied by promises or threats with regard to the employment or academic relationship;
 - C. Engage in verbal or physical conduct of a sexual nature with another employee, student or campus visitor, that may threaten or insinuate, either explicitly or implicitly, that the individual's submission to, or rejection of, the sexual advances will in any way:
 1. Influence any personnel decision regarding that person's employment, evaluation, wages, advancement, assigned duties, shifts or any other condition of employment or career development; or
 2. Influence his or her grades, participation in or access to academic programs, class standing or other educational opportunities;
 - D. Engage in verbal or physical conduct of a sexual nature that:
 1. Has the purpose or effect of substantially interfering with an employee's ability to do his or her job; or with a student's ability to learn or participate in a class; or
 2. Which creates an intimidating, hostile or offensive work or academic environment;
 - E. Commit any act of sexual assault or public sexual indecency against any employee or student whether on MCCCD property or in connection with any MCCCD-sponsored activity;
 - F. Continue to express sexual interest in another employee, student or campus visitor after being informed or on notice that the interest is unwelcome (reciprocal attraction is not considered sexual harassment);
4. Engage in other harassing conduct in the workplace or academic environment, whether physical or verbal, including, but not limited to, commentary about an individual's body (or body parts), degrading words to describe an individual, offensive comments, suggestive language or jokes, innuendoes, and suggestive objects, print or digital media. Misconduct may include exploitation, stalking, bullying. Such conduct must be based on an

individual's race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information.

5. Treat a complainant or witness of harassment in a manner that could dissuade a reasonable person from pursuing or participating in the complaint and investigation. Such treatment must be based on an individual's race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, pregnancy, veteran status or genetic information.
6. Engage in sexual misconduct, including but not limited to:
 - A. The use or display in the classroom, including electronic, of pornographic or sexually harassing materials such as posters, photos, cartoons or graffiti without pedagogical justification.
 - B. Explicit sexual comments by one or more employees about another employee or student, or circulating drawings or other images depicting an employee or student in a sexual manner.
 - C. Unwelcome sexual advances, repeated propositions or requests for a sexual relationship to an individual who has previously indicated that such conduct is unwelcome, or sexual gestures, noises, remarks, jokes, questions, or comments by a student about another person's sexuality or sexual experience.
 - D. Harassment based on sex, pregnancy, gender identity, gender expression, or sexual orientation that creates a hostile environment. A hostile environment exists when the conduct is sufficiently severe, or pervasive that it unreasonably interferes with, limits, or deprives an individual from participating in or benefitting from the District's education programs and/or activities, including employment. The existence of a hostile environment is to be judged both objectively (meaning a reasonable person would find the environment hostile) and subjectively (meaning the impacted individual felt the environment was hostile).
 - E. Sexual Exploitation, which means taking non-consensual or abusive sexual advantage of another for anyone's advantage or benefit other than the person being exploited. Examples of behavior that could rise to the level of Sexual Exploitation include:
 1. Recruiting, harboring, transporting, providing, or obtaining another person for the purpose of sexual exploitation;
 2. Non-consensual visual (e.g., video, photograph) or audio-recording of sexual activity;
 3. Non-consensual distribution of photos, other images, or information of an individual's sexual activity, intimate body parts, or nakedness, with the intent to or having the effect of embarrassing an individual who is the subject of such images or information;
 4. Going beyond the bounds of consent (such as attempting to kiss an employee or student without their consent)
 5. Engaging in non-consensual voyeurism;
 6. Knowingly transmitting an STI (sexually transmitted infection), such as HIV, to another without disclosing one's STI status;
 7. Exposing one's genitals in non-consensual circumstances, or inducing another to expose their genitals;
 8. Possessing, distributing, viewing or forcing others to view obscenity.
7. All complaints of sexual harassment or sexual misconduct shall be referred promptly to the college Title IX Coordinator (or the District Title IX Coordinator, if the allegations concern a District Office employee), for initial review in determining the appropriate investigation channel.
8. Matters pertaining to sexual harassment/misconduct that do not meet the definition of sexual harassment as outlined in Administrative Regulation 5.1.16 or otherwise do not meet the definition of an educational program or activity and do not occur against a person within the United States will be referred by the Title IX Coordinator to the College or District's respective Human Resources Department for investigation and adjudication under this conduct policy.

AMENDED by Direct Approval from the Chancellor, August 18, 2020

AMENDED by Direct Approval from the Chancellor, April 8, 2020

AMENDED by the Administrative Regulations Approval Process, January 2, 2020

5.1.9 Additional Policy Violations

Mandatory Reporters (as defined in Administrative Regulation 5.1.16) must report allegations of sexual harassment/assault (whether reported by the person who is the subject of the sexual harassment or a witness) to an Official with Authority or the Title IX Coordinator (as defined in Administrative Regulation 5.1.16). Failure to report to an Official with Authority or the Title IX Coordinator is a policy violation subject to discipline up to and including dismissal.

Campus Security Authority (CSAs) are mandatory reporters under the Cleary Act. Failure to report is a policy violation subject to discipline up to and including dismissal.

Mandatory Reporters are expected to report harassment/discrimination (whether reported by the person who is the subject of the sexual harassment or a witness) based on an individual's race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status or genetic information. Failure to report may be a policy violation subject to discipline up to and including dismissal.

AMENDED by Direct Approval from the Chancellor, November 16, 2020

AMENDED by the Administrative Regulations Approval Process, January 2, 2020

5.1.10 Responsibility for Policy Enforcement

Employees and students must avoid offensive or inappropriate harassing behavior based on an individual's race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status or genetic information at work or in the academic environment (in and out of the classroom).

Employees and students are encouraged (but not required) to inform perceived offenders of this policy and that the commentary/conduct is offensive and unwelcome.

AMENDED by the Administrative Regulations Approval Process, January 2, 2020

5.1.11 Complaints

1. Employees

Employees who experience harassment at work (by a supervisor, co-employee, student or visitor) are urged to report such conduct to the direct attention of their supervisor, their college president or to the Maricopa County Community College District (MCCCD) Equal Employment Opportunity/Affirmative Action Office. If the complaint involves the employee's supervisor or someone in the direct line of supervision, or if the employee for any reason is uncomfortable in dealing with their immediate supervisor, the employee may go directly to the MCCCD EEO/AA Office.

2. Students

Students who experience sexual harassment or sexual assault in a school's education program and activities (by a faculty member, administrator, staff, campus visitor or other student) are urged to report such conduct to the designated Title IX Coordinator, of which there is one for each MCCCD college. A student may also contact the MCCCD EEO/AA Office to obtain the name and phone number of the college official designated to respond to harassment complaints based on an individual's race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status or genetic information.

3. General

- A. Complaints by employees will be investigated according to procedures established by the MCCCD EEO/AA Office. Copies of these procedures may be obtained on the District website and the MCCCD EEO/AA Office.
- B. Complaints by students will be investigated according to the procedures established in the College Environment section of the Administrative Regulations (AR 2.4). Copies of these procedures are posted on the District website.
- C. All complaints will be investigated in a prompt, thorough, and impartial manner.
- D. Where investigation confirms the allegations, appropriate, response action will be taken by the college/center/MCCCD.

AMENDED by the Administrative Regulations Approval Process, January 2, 2020

5.1.12 Confidentiality

Records will be maintained in a confidential manner to the extent permitted by law and insofar as they do not interfere with the Maricopa County Community College District's (MCCCD) legal obligation to investigate and resolve issues of discrimination and harassment based on one's protected class status as outlined in law and in MCCCD policy. The MCCCD cannot promise complete confidentiality.

AMENDED by the Administrative Regulations Approval Process, January 2, 2020

5.1.13 Violations of Law

An employee or student may be accountable for sexual harassment under applicable local, state, and/or federal law, as well as under Maricopa County Community College District (MCCCD) policy. Disciplinary action by MCCCD may proceed while criminal proceedings are pending and will not be subject to challenge on the grounds that criminal charges involving the same incident have been dismissed or reduced.

AMENDED by the Administrative Regulations Approval Process, January 2, 2020

5.1.14 False Statements Prohibited

Any individual who knowingly provides false information pursuant to filing a discrimination charge or during the investigation of a discrimination charge, will be subject to appropriate disciplinary action, up to and including, employment termination or academic dismissal.

AMENDED by the Administrative Regulations Approval Process, January 2, 2020

5.1.15 Retaliation Prohibited

Retaliation against an employee or student for engaging in protected activity is strictly prohibited. The Maricopa County Community College District (MCCCD) strictly prohibits taking an adverse action that might deter a reasonable person from participating in activity protected by antidiscrimination laws. Protected activity consists of:

- (a) opposing conduct reasonably believed to constitute discrimination, including harassment which violates a nondiscrimination statute or which MCCCD policy prohibits;
- (b) filing a complaint about such practice; or
- (c) testifying, assisting, or participating in any manner in an investigation or other proceeding related to a discrimination complaint.

Retaliatory actions are not limited to formal personnel actions such as termination, demotion, non-promotion, or non-selection. Retaliatory actions are broadly defined as harassing behavior, significant changes to job duties or working conditions, and even threats to take personnel actions based on engaging in protected activity. MCCCD will take appropriate disciplinary action, up to and including employment termination or academic dismissal if retaliation occurs.

AMENDED by the Administrative Regulations Approval Process, January 2, 2020

5.1.16 TITLE IX Sexual Harassment Policy

I. DEFINITIONS

1. **Actual Knowledge** means that an employee, student, or third-party informs the Title IX Coordinator or other Official with Authority of the alleged occurrence of alleged harassing, discriminatory, and/or retaliatory conduct. Actual knowledge compels the Maricopa County Community College District (MCCCD) to initiate action.
2. **Advisor** means a person chosen by a party or appointed by the institution to accompany the party to meetings related to the resolution process, to advise the party on that process, and to conduct cross-examination for the party at the hearing, if a hearing is held. This individual may be an MCCCD employee, a member of the community, or attorney (hired and paid for by a party).

3. **Complainant** means an individual who is alleged to be the victim of conduct that could constitute sexual harassment or retaliation for engaging in a protected activity.
4. **Formal Complaint** means a document filed with the Title IX Coordinator/signed by a Complainant or signed by the Title IX Coordinator alleging against sexual harassment or retaliation for engaging in a protected activity against a Respondent and requesting that the MCCCC investigate the allegation.
5. **Confidential Resource** means an employee who is not a Mandatory Reporter or an Official with Authority (irrespective of Clery Act Campus Security Authority status). At MCCCC, there is only one confidential resource. This confidential resource is the Ombudsman, who is located in the MCCCC Office of Public Stewardship.
6. **Day(s)** means a business day when the MCCCC is in normal operation.
7. **Education program or activity** means locations, events, or circumstances where MCCCC exercises substantial control over both the Respondent and the context in which the sexual harassment or discrimination occurs and also includes any building owned or controlled by a student organization that is officially recognized by the MCCCC.
8. **Final Determination of Responsibility** means a conclusion by preponderance of the evidence that the alleged conduct occurred, or did not occur, and whether it did, or did not, violate policy.
9. **Formal Grievance Process** means a method of formal resolution designated by MCCCC to address conduct that falls within the policies included below, and which complies with the requirements of 34 CFR Part 106.45.
10. **Grievance Process Pool** means any investigators, appeal officers, hearing administrators, and Advisors who may perform any or all of these roles (though not at the same time or with respect to the same case).
11. **Hearing Decision-maker** means a person who has decision-making and sanctioning authority within the MCCCC's Formal Title IX Grievance process.
12. **Investigator** means the person or persons charged by MCCCC with gathering facts about an alleged violation of this policy, assessing relevance and credibility, synthesizing the evidence, and compiling this information into an investigation report and file of directly related evidence.
13. **Mandatory Reporter** means an employee of MCCCC who is obligated by policy to share knowledge, notice, and/or reports of harassment, discrimination, and/or retaliation with the Title IX Coordinator. Mandatory reporters do not convey actual knowledge to the MCCCC. Mandatory Reporter under this policy does not diminish the requirement under Arizona state law to report alleged or suspected child abuse, elder abuse, and/or abuse of individuals with disabilities to appropriate officials, though these responsibilities may overlap with those who have mandatory reporter responsibility in this policy.
14. **Official with Authority (OWA)** means an employee of the MCCCC explicitly vested with the responsibility to implement corrective measures for harassment and/or retaliation on behalf of the MCCCC. Notice to an OWA of an allegation of sexual harassment as defined in this policy conveys actual knowledge to the MCCCC and triggers a responsibility to act.
15. **Parties** include the Complainant(s) and Respondent(s), collectively.
16. **Promptness** means the time period in which allegations are acted upon once MCCCC has received notice or a formal complaint. Typically, complaints can take 60-90 business days to resolve. There are always exceptions and extenuating circumstances that can cause a resolution to take longer, but MCCCC will avoid all undue delays within its control.
17. **Remedies** means post-finding actions directed to the Complainant and/or the community as mechanisms to address safety, prevent recurrence, and restore access to MCCCC's educational program.
18. **Respondent** means an individual who has been reported to be the perpetrator of conduct that could constitute harassment or discrimination based on a protected class; or retaliation for engaging in a protected activity. When the Respondent is a member of the MCCCC community, a grievance

process may be available regardless of the status of the Complainant, who may or may not be a member of the MCCCCD community.

19. **Resolution** means the result of an informal or formal grievance process.
20. **Sanction** means a consequence imposed by MCCCCD on a Respondent who is found to have violated this policy.
21. **Sexual Harassment** means the umbrella category including the offenses of sexual harassment, sexual assault, stalking, and dating violence and domestic violence.
22. **Title IX Coordinator** is at least one official designated by MCCCCD to ensure compliance with Title IX and the MCCCCD's Title IX program. References to the Coordinator throughout this policy may also encompass a designee of the Coordinator for specific tasks.
23. **Student** means any individual who is registered or enrolled for credit or non-credit bearing coursework, camps and other District-sponsored programs or activities, and who maintains an ongoing relationship with the MCCCCD, which means the student is on leave (medical, administrative, or other documented leave of absence), but is not registered or taking classes at the time of the complaint being filed.
24. **Title IX Team** refers to the Title IX Coordinator, any deputy coordinators, and any member(s) of the Grievance Process Pool.

II. RATIONALE FOR POLICY

MCCCCD is committed to providing a workplace and educational environment, as well as other benefits, programs, and activities, that are free from sexual harassment, discrimination on the basis of sex, and retaliation. To ensure compliance with federal and state civil rights laws and regulations, and to affirm its commitment to promoting the goals of fairness and equity in all aspects of the educational program or activity, MCCCCD has developed internal policies and procedures that provide a prompt, fair, and impartial process for those involved in an allegation of sexual harassment, and for allegations of retaliation. MCCCCD values and upholds the equal dignity of all members of its community and strives to balance the rights of the parties in the grievance process during what is often a difficult time for all those involved.

III. TITLE IX COORDINATOR

Each MCCCCD college has a designated Title IX Coordinator who oversees implementation of this policy. The Title IX Coordinator has the primary responsibility for coordinating MCCCCD's efforts related to the intake, investigation, resolution, and implementation of supportive measures to stop, remediate, and prevent discrimination, harassment, and retaliation prohibited under this policy.

The names and contact information for each college Title IX Coordinator can be found on the following page: <https://district.maricopa.edu/consumer-information/title-ix/title-ix-coordinators>. It is the responsibility of each of the MCCCCD colleges' Vice Presidents of Student Affairs to ensure this list is up-to-date with correct information. The college Title IX Coordinators must act with independence and authority free from bias and conflicts of interest.

To raise any concern involving bias or conflict of interest by the college Title IX Coordinator, contact the Compliance Office in the Office of General Counsel by emailing compliance@domail.maricopa.edu. Concerns of bias or a potential conflict of interest by any other Title IX team member should be raised with the respective college Title IX Coordinator.

Reports of misconduct or discrimination committed by the college Title IX Coordinator should be reported to the college Human Resources Department. Reports of misconduct or discrimination committed by any other Title IX Team member should be reported to the respective college Title IX Coordinator.

IV. OFFICIALS WITH AUTHORITY AND MANDATORY REPORTERS

OFFICIALS WITH AUTHORITY

MCCCCD has determined that the following administrators are Officials with Authority to address and correct sexual harassment and/or retaliation. In addition to the Title IX team members listed in Section 1. Definitions, these Officials

with Authority listed below may also accept notice or complaints on behalf of the MCCCCD. Knowledge on the part of an Official with Authority conveys actual knowledge to the MCCCCD.

1. College/District Title IX Coordinator
2. Chancellor
3. Provost
4. General Counsel and Associate General Counsels
5. Chief Human Resources Officer
6. Chief Executive Officer
7. College Presidents
8. College Vice Presidents (at all levels)
9. Associate Vice Chancellors
10. Law enforcement
11. Athletic Directors
12. Directors (in any administrative area of a college or the District)

MANDATORY REPORTERS

The following classification of employees are mandatory reporters and are required to report actual or suspected discrimination or harassment to the respective college Title IX Coordinator or to the District Compliance Office for District employees. A Complainant who expects formal action in response to their allegations, but does not wish to contact the Title IX Coordinator should report their allegations to any mandatory reporter who can connect them with resources to report crimes and/or policy violations. Mandatory reporters will, within twenty-four (24) hours, refer reports to the Title IX Coordinator (and/or police, if desired by the Complainant), who will take action. Mandatory reporters must promptly (within twenty-four (24) hours) share with the Title IX Coordinator all known details of a report made to them in the course of their employment. The persons occupying the following positions are mandatory reporters. Knowledge to a mandatory reporter does not convey actual knowledge to the MCCCCD.

1. Chancellor
2. Provost
3. General Counsel
4. Chief Human Resources Officer
5. Chief Workforce and Economic Development Officer
6. Chief Executive Officer
7. College Presidents
8. Associate Vice Chancellors
9. Director of Communications
10. Associate General Counsels
11. Supervisors/Managers/Directors (but not including division or department chairs)
12. College Vice Presidents, at all levels
13. Deans, at all levels
14. Athletic Directors/Coaches/Trainers
15. Law enforcement

Anonymous Notice to Mandated Reporters

A Complainant may request that the mandatory reporter provide notice to the Title IX Coordinator anonymously, without identification of the Complainant. A mandatory reporter cannot remain anonymous themselves. The MCCCCD will investigate matters in which anonymous notice has been given to the extent possible, both to assess the underlying allegation(s) and to determine if supportive measures or remedies can be provided. However, anonymous notice typically limits the MCCCCD's ability to investigate, respond, and provide remedies, depending on what information is shared. When a Complainant has made a request for anonymity, the Complainant's personally identifiable information may be withheld by a mandatory reporter, but all other details of the alleged incident(s) must be shared with the Title IX

Coordinator. Supportive measures may be offered to the Complainant as the result of such disclosures without formal MCCCCD action.

Failure of a mandatory reporter to report an incident of harassment or discrimination of which they become aware is a violation of MCCCCD policy and the mandatory reporter may be subject to disciplinary action, up to and including termination, for failure to comply.

V. CONFIDENTIAL RESOURCES AND FEDERAL RESOURCES

A Complainant who wants to keep the details of an incident confidential may speak with:

- On-campus (Maricopa Community Colleges District Office) Office of Public Stewardship
- Off-campus (non-employees):
 - Licensed professional counselors and other medical providers
 - Local rape crisis counselors
 - Domestic violence resources
 - Local or state assistance agencies
 - Clergy/Chaplains
 - Attorneys

The Office of Public Stewardship will timely submit anonymous statistical information for Clery Act purposes unless they believe it would be harmful to their client.

External Inquiries may also be made to:

Office for Civil Rights,

Denver Office

U.S. Department of Education

Cesar E. Chavez Memorial Building

1244 Speer Boulevard, Suite 310

Denver, CO 80204-3582

Telephone: (303) 844-5695

Facsimile: (303) 844-4303

Email: OCR.Denver@ed.gov

VI. NOTICE/COMPLAINTS OF DISCRIMINATION, HARASSMENT, AND/OR RETALIATION

Notice or complaints of discrimination, harassment, and/or retaliation in violation of this policy may be made using any of the following options:

1) File a complaint with, or give verbal notice to, a college Title IX Coordinator or an Official with Authority. Such a report may be made at any time (including during non-business hours) by using the telephone number or email address, or by mail to the office address, listed for the Title IX Coordinator or any other official listed. Title IX Coordinators can be found on the following page: <https://district.maricopa.edu/consumer-information/title-ix/title-ix-coordinators>. It is the responsibility of each of the MCCCCD college's Vice President of Student Affairs to ensure this list is up to date with correct information.

2) Report online, using the reporting form posted at <https://district.maricopa.edu/consumer-information/reporting>. Anonymous reports are accepted, but can give rise to a need to investigate. The MCCCCD tries to provide supportive measures to all Complainants, which is impossible with an anonymous report when the name of the Complainant is not shared in the report. Since anonymous reporting carries no obligation to initiate a formal response and since the MCCCCD respects a Complainant's requests to dismiss complaints, unless there is a compelling threat to health and/or safety, the matter will be dismissed.

A formal complaint is a document filed and signed by the Complainant or signed by the Title IX Coordinator alleging a policy violation by a Respondent and requesting that the MCCCCD investigate the allegation(s). A complaint may be filed

with the Title IX Coordinator in person, by mail, or by electronic mail, by using the contact information in the section immediately above, or as described in this section. As used in this paragraph, the phrase “document filed by a Complainant” means a document or electronic submission (such as by electronic mail or through an online portal provided for this purpose by the MCCCDC) that contains the Complainant’s physical or digital signature, which can include the Complainant’s name on the email, or otherwise indicates that the Complainant is the person filing the complaint.

The Title IX Coordinator will contact the Complainant regarding any notice that is submitted in a form that does not comply with these requirements to ensure that it is filed correctly.

VII. SUPPORTIVE MEASURES

MCCCDC will offer and implement appropriate and reasonable supportive measures to the parties upon notice of alleged harassment, discrimination, and/or retaliation.

Supportive measures are non-disciplinary, non-punitive individualized services offered as appropriate, as reasonably available, and without fee or charge to the parties to restore or preserve access to the MCCCDC’s education program or activity, including measures designed to protect the safety of all parties, the MCCCDC’s educational environment, and/or deter sexual harassment, discrimination on the basis of sex, and/or retaliation.

The Title IX Coordinator shall make supportive measures available to the parties upon receiving notice of allegations or a formal complaint. There is no statute of limitations for filing a Title IX Complaint. The Title IX Coordinator works with the Complainant to ensure their wishes are considered with respect to the planned and implemented supportive measures.

The MCCCDC will maintain the privacy of the supportive measures, provided that maintaining privacy does not impair the MCCCDC’s ability to provide the supportive measures. MCCCDC will act to ensure as minimal an academic impact on the parties as possible. The MCCCDC will implement measures in a way that does not unreasonably burden the other party.

These actions may include, but are not limited to:

1. Referral to counseling, medical, and/or other healthcare services
2. Referral to the Employee Assistance Program
3. Referral to community-based service providers
4. In-house visa and immigration assistance
5. Student financial aid counseling
6. Education to the community or community subgroup(s)
7. Altering work arrangements for employees or student-employees
8. Safety planning
9. Providing campus safety escorts
10. Implementing contact limitations (no contact orders) between the parties
11. Academic support, extensions of deadlines, or other course/program-related adjustments
12. Trespass orders, when applicable
13. Timely warnings under the Clery Act
14. Class schedule modifications, withdrawals, or leaves of absence
15. Increased security and monitoring of certain areas of the campus
16. Any other actions deemed appropriate by the Title IX Coordinator

Violations of no contact orders will be referred to appropriate student or employee conduct processes for enforcement and further discipline, as is necessary.

VIII. EMERGENCY REMOVAL

MCCCDC can act to remove a Respondent entirely or partially from its education program/activities or MCCCDC employment on an emergency basis when an individualized safety and risk analysis has determined that an immediate threat to the physical health or safety of any student or other individual justifies removal. This risk analysis is performed by the Title IX Coordinator in conjunction with the college or District Behavioral Intervention Team (also known as BIT/BAT/TAT/CARE, etc.) using its standard objective violence risk assessment procedures.

The Title IX Coordinator has sole discretion under this policy to implement or stay an emergency removal and to determine the conditions and duration. Violation of an emergency removal under this policy will be grounds for discipline, which may include expulsion from the MCCCDC or termination from employment.

In all cases where an emergency removal is imposed:

1. The Respondent will be given written notice of the action. In the written notice will be the option to request to meet with the Title IX Coordinator as soon as reasonably possible, to show cause as to why the action/removal should not be implemented or should be modified. This meeting is not a hearing on the merits of the underlying Title IX allegations, but rather an administrative process intended to determine solely whether the emergency removal is appropriate.
2. The Respondent has three (3) days after the receipt of the emergency removal to request a meeting with the Title IX Coordinator. If the Respondent does not make such a request within the three (3) day time period, objection to the emergency removal is deemed waived.
3. The Respondent may be accompanied by an Advisor of their choosing in the Show Cause administrative meeting with the Title IX Coordinator.
4. The Respondent will be given access to a written summary of the basis for the emergency removal prior to the meeting to allow for adequate preparation. Such summary will be included in the notification letter regarding the emergency removal.
5. The Title IX Coordinator will issue a Show Cause Meeting Determination letter to the Respondent within two (2) days of the meeting taking place.
6. There is no appeal process for emergency removal decisions.
7. A Complainant and their Advisor may be permitted to participate in this meeting, as it is equitable to do so.
8. MCCCDC will implement the least restrictive emergency actions possible in light of the circumstances and safety concerns.

For additional information regarding emergency removals, please see [Emergency Removals](#).

IX. PRIVACY

Every effort is made by the MCCCDC to preserve the privacy of a report under this policy.

For additional information regarding privacy and confidentiality under this policy, please see [Privacy and Confidentiality](#).

X. JURISDICTION

This policy applies to all MCCCDC educational programs and activities, and to conduct that takes place on the campus or on property owned or controlled by the MCCCDC, at MCCCDC-sponsored events, or in buildings owned or controlled by MCCCDC's recognized student organizations. The Respondent must be a member of MCCCDC's community in order for its policies to apply. Nevertheless, even when the Respondent is not a member of the MCCCDC's community, supportive measures, remedies, and resources may be accessible to the Complainant by contacting the Title IX Coordinator.

This policy applies to the effects of off-campus misconduct that effectively deprive someone of access to MCCCDC's educational programs. The MCCCDC may also extend jurisdiction to off-campus and/or to online conduct when the Title IX Coordinator determines that the conduct affects a substantial MCCCDC interest.

Regardless of where the conduct occurred, the MCCCDC will address notice/complaints to determine whether the conduct occurred in the context of its employment or educational program or activity and/or has continuing effects on campus or in an off-campus sponsored program or activity.

A Title IX Coordinator may be able to provide guidance for a student or employee Complainant who experiences sexual harassment/discrimination in an externship, study abroad program, or other environment external to the MCCCDC under the MCCCDC's Student Conduct Code or employee conduct or nondiscrimination policies.

For additional information regarding the MCCCDC jurisdiction over Title IX matters, please see [Jurisdiction](#).

XI. TIME LIMITS ON REPORTING

There is no time limitation on providing notice/complaints to the Title IX Coordinator. However, if the Respondent is no longer subject to the MCCCCD's jurisdiction and/or significant time has passed, the ability to investigate, respond, and provide remedies may be more limited or impossible.

Acting on notice/complaints significantly impacted by the passage of time (including, but not limited to, the rescission or revision of policy) is at the discretion of the Title IX Coordinator (except in cases where mandatory dismissal is required), who may document allegations for future reference, offer supportive measures and/or remedies, and/or engage in informal or formal action, as appropriate.

The MCCCCD will apply the policy in place at the time of the alleged misconduct and the procedures in place at the time of the notice of alleged misconduct or complaint of sexual harassment.

XII. ONLINE HARASSMENT AND MISCONDUCT

This policy is written and should be interpreted broadly to include online and cyber manifestations of any of the behaviors prohibited below, when those behaviors occur in or have an effect on the MCCCCD's education programs and activities or use MCCCCD networks, technology, or equipment.

When harassing communications made on websites, social media, and other venues not controlled by the MCCCCD are reported to the MCCCCD pursuant to this policy the MCCCCD will attempt to address and mitigate the effects of such communications. Any online postings or other electronic communication by students and employees, including cyber-bullying, cyber-stalking, cyber-harassment, etc., occurring completely outside of the MCCCCD's control (e.g., not on MCCCCD networks, websites, or between MCCCCD email accounts) will only be subject to this policy when such online conduct can be shown to cause a substantial in-program disruption to the student's educational pursuit of MCCCCD's educational programs and/or activities.

Off-campus harassing speech by employees, whether online or in person, may be regulated by the MCCCCD only when such speech is made in an employee's official or work-related capacity, including where the speaker holds themselves out as employees of an MCCCCD college or District office. Otherwise, such communications are considered speech protected by the First Amendment. Supportive measures for Complainants will be provided, but protected speech will not be subjected to discipline.

XIII. TITLE IX SEXUAL HARASSMENT

MCCCCD has adopted the following definition of Title IX Sexual Harassment in order to address the unique environment of an academic community, which consists not only of employer and employees, but of students as well.

Acts of sexual harassment may be committed by any person upon any other person, regardless of the sex, sexual orientation, and/or gender identity of those involved.

Sexual Harassment, as an umbrella category, includes the offenses of sexual harassment/discrimination, sexual assault, domestic violence, dating violence, and stalking, and is defined as:

Conduct on the basis of sex that satisfies one or more of the following:

- 1) Quid Pro Quo:
 - a. an employee of the MCCCCD,
 - b. conditions the provision of an aid, benefit, or service of the MCCCCD,
 - c. on an individual's participation in unwelcome sexual conduct; and/or
- 2) Sexual Harassment:
 - a. unwelcome conduct,
 - b. determined by a reasonable person,
 - c. to be so severe, and
 - d. pervasive, and,
 - e. objectively offensive,

- f. that it effectively denies a person equal access to the MCCC'D's education program or activity. Severity, pervasiveness, and objective offensiveness are evaluated based on the totality of the circumstances from the perspective of a reasonable person in the same or similar circumstances ("in the shoes of the Complainant"), including the context in which the alleged incident occurred and any similar, previous patterns that may be evidenced.
- 3) Sexual assault, defined as:
- a) Sex Offenses, Forcible:
 - i) Any sexual act directed against another person,
 - ii) without the consent of the Complainant,
 - iii) including instances in which the Complainant is incapable of giving consent.
 - b) Forcible Rape:
 - i) Penetration,
 - ii) no matter how slight,
 - iii) of the vagina or anus with any body part or object, or
 - iv) oral penetration by a sex organ of another person,
 - v) without the consent of the Complainant.
 - c) Forcible Sodomy:
 - i) Oral or anal sexual intercourse with another person,
 - ii) forcibly,
 - iii) and/or against that person's will (non-consensually), or
 - iv) not forcibly or against the person's will in instances in which the Complainant is incapable of giving consent because of age (under the age of 18) or because of temporary or permanent mental or physical incapacity.
 - d) Sexual Assault with an Object:
 - i) The use of an object or instrument to penetrate,
 - ii) however slightly,
 - iii) the genital or anal opening of the body of another person,
 - iv) forcibly,
 - v) and/or against that person's will (non-consensually),
 - vi) or not forcibly or against the person's will in instances in which the Complainant is incapable of giving consent because of age or because of temporary or permanent mental or physical incapacity.
 - e) Forcible Fondling:
 - i) The touching of the private body parts of another person (buttocks, groin, breasts),
 - ii) for the purpose of sexual gratification,
 - iii) forcibly,
 - iv) and/or against that person's will (non-consensually),
 - v) or not forcibly or against the person's will in instances in which the Complainant is incapable of giving consent because of age or because of temporary or permanent mental or physical incapacity.
 - f) Sex Offenses, Non-forcible:
 - i) Incest:
 - 1) Non-forcible sexual intercourse,
 - 2) between persons who are related to each other,
 - 3) within the degrees wherein marriage is prohibited by Arizona law.
 - ii) Statutory Rape:
 - 1) Non-forcible sexual intercourse,
 - 2) with a person who is under the Arizona statutory age of consent, which is the age of 18 years old.
- 4) Dating Violence, defined as:
- a. violence,
 - b. on the basis of sex,

- c. committed by a person,
 - d. who is in or has been in a social relationship of a romantic or intimate nature with the Complainant.
 - i. The existence of such a relationship shall be determined based on the Complainant's statement and with consideration of the length of the relationship, the type of relationship, and the frequency of interaction between the persons involved in the relationship. For the purposes of this definition
 - ii. Dating violence includes, but is not limited to, sexual or physical abuse or the threat of such abuse.
 - iii. Dating violence does not include acts covered under the definition of domestic violence.
- 5) Domestic Violence, defined as:
- a. violence,
 - b. on the basis of sex,
 - c. committed by a current or former spouse or intimate partner of the Complainant,
 - d. by a person with whom the Complainant shares a child in common, or
 - e. by a person who is cohabitating with, or has cohabitated with, the Complainant as a spouse or intimate partner, or
 - f. by a person similarly situated to a spouse of the Complainant under the domestic or family violence laws of the state of Arizona or
 - g. by any other person against an adult or youth Complainant who is protected from that person's acts under the domestic or family violence laws of the state of Arizona.

To categorize an incident as Domestic Violence, the relationship between the Respondent and the Complainant must be more than just two people living together as roommates. The people cohabitating must be current or former spouses or have an intimate relationship.

- 6) Stalking, defined as:
- a. engaging in a course of conduct,
 - b. on the basis of sex,
 - c. directed at a specific person, that would cause a reasonable person to fear for the person's safety, or the safety of others; or suffer substantial emotional distress.
- For the purposes of this definition—
- (i) Course of conduct means two or more acts, including, but not limited to, acts in which the Respondent directly, indirectly, or through third parties, by any action, method, device, or means, follows, monitors, observes, surveils, threatens, or communicates to or about a person, or interferes with a person's property.
 - (ii) Reasonable person means a reasonable person under similar circumstances and with similar identities to the Complainant.
 - (iii) Substantial emotional distress means significant mental suffering or anguish that may but does not necessarily require medical or other professional treatment or counseling.

MCCCD reserves the right to impose any level of sanction, ranging from a reprimand up to and including suspension or expulsion/termination, for any offense under this policy.

Force, Coercion, Consent, and Incapacitation:

As used in the offenses above, the following definitions apply:

Force: Force is the use of physical violence and/or physical imposition to gain sexual access. Force also includes threats, intimidation (implied threats), and coercion that is intended to overcome resistance or produce consent.

Sexual activity that is forced is, by definition, non-consensual, but non-consensual sexual activity is not necessarily forced. Silence or the absence of resistance alone is not consent. Consent is not demonstrated by the absence of resistance. While resistance is not required or necessary, it is a clear demonstration of non-consent.

Coercion: Coercion is unreasonable pressure for sexual activity. Coercive conduct differs from seductive conduct based on factors such as the type and/or extent of the pressure used to obtain consent. When someone makes clear that they do not want to engage in certain sexual activity, that they want to stop, or that they do not want to go past a certain point of sexual interaction, continued pressure beyond that point may be coercive.

Consent is:

- knowing, and
- voluntary, and
- clear permission
- by word or action
- to engage in sexual activity.

Since individuals may experience the same interaction in different ways, it is the responsibility of each party to determine that the other has consented before engaging in the activity. No one under the age of consent in Arizona, specifically, 18 years old, can consent to sexual activity.

If consent is not clearly provided prior to engaging in the activity, consent may be ratified by word or action at some point during the interaction or thereafter, but clear communication from the outset is strongly encouraged.

For consent to be valid, there must be a clear expression in words or actions that the other individual consented to that specific sexual conduct. Reasonable reciprocation can be implied. For example, if someone kisses you, you can kiss them back (if you want to) without the need to explicitly obtain *their* consent to being kissed back.

Consent can also be withdrawn once given, as long as the withdrawal is reasonably and clearly communicated. If consent is withdrawn, that sexual activity should cease within a reasonable time.

Consent to some sexual contact (such as kissing or fondling) cannot be presumed to be consent for other sexual activity (such as intercourse). A current or previous intimate relationship is not sufficient to constitute consent.

Proof of consent or non-consent is not a burden placed on either party involved in an incident. Instead, the burden remains on the MCCCCD to determine whether its policy has been violated. The existence of consent is based on the totality of the circumstances evaluated from the perspective of a reasonable person in the same or similar circumstances, including the context in which the alleged incident occurred and any similar, previous patterns that may be evidenced.

Incapacitation: Incapacitation occurs when someone cannot make rational, reasonable decisions because they lack the capacity to give knowing/informed consent (e.g., to understand the “who, what, when, where, why, or how” of their sexual interaction).

Incapacitation is determined through consideration of all relevant indicators of an individual’s state and is not synonymous with intoxication, impairment, blackout, and/or being drunk.

A person cannot consent if they are unable to understand what is happening or are disoriented, helpless, asleep, or unconscious, for any reason, including by alcohol or other drugs. As stated above, a Respondent violates this policy if they engage in sexual activity with someone who is incapable of giving consent.

It is a defense to a sexual assault policy violation that the Respondent neither knew nor should have known the Complainant to be physically or mentally incapacitated. “Should have known” is an objective, reasonable person standard which assumes that a reasonable person is both sober and exercising sound judgment.

This policy also covers a person whose incapacity results from a temporary or permanent physical or mental health condition, involuntary physical restraint, and/or the consumption of incapacitating drugs.

XIV. RETALIATION

Protected activity under this policy includes reporting an incident that may implicate this policy, participating in the grievance process, supporting a Complainant or Respondent, assisting in providing information relevant to an investigation, and/or acting in good faith to oppose conduct that constitutes a violation of this policy.

Acts of alleged retaliation should be reported immediately to the Title IX Coordinator and will be promptly investigated. The MCCCCD is prepared to take appropriate steps to protect individuals who fear that they may be subjected to retaliation.

It is prohibited for the MCCCCD or any member of MCCCCD's community to take materially adverse action by intimidating, threatening, coercing, harassing, or discriminating against any individual for the purpose of interfering with any right or privilege secured by law or policy, or because the individual has made a report or complaint, testified, assisted, or participated or refused to participate in any manner in an investigation, proceeding, or hearing under this policy and procedure.

Charges against an individual for Student Conduct Code violations that do not involve sex discrimination or sexual harassment but arise out of the same facts or circumstances as a report or complaint of sex discrimination, or a report or complaint of sexual harassment, for the purpose of interfering with any right or privilege secured by Title IX, constitutes retaliation.

The following do not constitute retaliation under this policy:

1. The exercise of rights protected under the First Amendment.
2. Charging an individual with a code of conduct violation for making a materially false statement in bad faith in the course of a grievance proceeding under this policy and procedure. A determination regarding responsibility, alone, is not sufficient to conclude that any party has made a materially false statement in bad faith.

For additional information on prohibited retaliation, please see [Retaliation](#).

XV. WHEN A COMPLAINANT DOES NOT WISH TO PROCEED

If a Complainant does not wish for their name to be shared, does not wish for an investigation to take place, or does not want a formal complaint to be pursued, they may make such a request to the Title IX Coordinator, who will evaluate that request in light of the duty to ensure the safety of the campus and to comply with state or federal law.

The Title IX Coordinator has ultimate discretion over whether the MCCCCD proceeds when the complainant does not wish to do so. The Title IX Coordinator may sign a formal complaint to initiate a grievance process upon completion of an appropriate violence risk assessment. The Title IX Coordinator's decision to sign a formal complaint should be based on results of the violence risk assessment that show a compelling risk to health and/or safety that requires the MCCCCD to pursue formal action to protect the community.

When the Title IX Coordinator executes the written complaint, they do not become the Complainant. The Complainant is the individual who is alleged to be the victim of conduct that could constitute a violation of this policy. The Complainant (or their Advisor) may have as much or as little involvement in the process as they wish. The Complainant retains all rights of a Complainant under this Policy irrespective of their level of participation. Typically, when the Complainant chooses not to participate, the Advisor may be appointed as proxy for the Complainant throughout the process, acting to ensure and protect the rights of the Complainant.

In cases in which the Complainant requests confidentiality/no formal action and the circumstances allow the MCCCCD to honor that request, the MCCCCD will offer supportive measures, and remedies to the Complainant and the community, but will not otherwise pursue formal action.

If the Complainant elects to take no action, they can change that decision if they decide to pursue a formal complaint at a later date. Upon making a formal complaint, a Complainant has the right, and can expect, to have allegations taken seriously by the MCCCCD, and to have the incidents investigated and properly resolved through these procedures.

XVI. FEDERAL TIMELY WARNING OBLIGATIONS

Parties reporting sexual assault, domestic violence, dating violence, and/or stalking should be aware that under the Clery Act, MCCCCD must issue timely warnings for incidents reported to them that pose a serious or continuing threat of bodily harm or danger to members of the campus community.

MCCCCD will ensure that a Complainant's name and other identifying information is not disclosed, while still providing enough information for community members to make safety decisions in light of the potential danger.

XVII. FALSE ALLEGATIONS AND EVIDENCE

Deliberately false and/or malicious accusations under this policy, as opposed to allegations which, even if erroneous, are made in good faith, are a serious offense and will be referred to either the Student Conduct Code or employee conduct policies for appropriate disciplinary action.

Additionally, witnesses and parties knowingly providing false evidence, tampering with or destroying evidence after being directed to preserve such evidence, or deliberately misleading an investigator or hearing Decision-maker will be subject to discipline under the appropriate student or employee policy as well as under this policy for providing false testimony.

XVIII. AMNESTY FOR COMPLAINANTS AND WITNESSES

The MCCCCD community encourages the reporting of misconduct and crimes by Complainants and witnesses. Sometimes, Complainants or witnesses are hesitant to report to MCCCCD officials or participate in grievance processes because they fear that they themselves may be in violation of certain policies, such as underage drinking or use of illicit drugs at the time of the incident. Respondents may hesitate to be forthcoming during the process for the same reasons.

It is in the best interests of the MCCCCD community that Complainants choose to report misconduct to MCCCCD officials, that witnesses come forward to share what they know, and that all parties be forthcoming during the process. To encourage reporting and participation in the process, MCCCCD maintains a policy of offering parties and witnesses amnesty from minor policy violations, such as underage consumption of alcohol or the use of illicit drugs related to the incident being reported.

Amnesty does not apply to more serious allegations such as physical abuse of another or illicit drug distribution. A decision not to offer amnesty to a Respondent should not be based on sex nor gender, but should take into account the rationale for amnesty. The incentive to report serious misconduct is rarely applicable to Respondents with respect to a Complainant.

MCCCCD maintains a policy of amnesty for students who offer help to others in need via bystander intervention. While policy violations cannot be overlooked, MCCCCD may provide purely educational options with no official disciplinary finding, rather than punitive sanctions, to those who offer their assistance to others in need.

XIX. FEDERAL STATISTICAL REPORTING OBLIGATIONS

Certain campus officials – those deemed Campus Security Authorities – have a duty to report the following for federal statistical reporting purposes (Clery Act):

- a) All “primary crimes,” which include homicide, sexual assault, robbery, aggravated assault, burglary, motor vehicle theft, and arson;
- b) Hate crimes, which include any bias motivated primary crime as well as any bias motivated larceny or theft, simple assault, intimidation, or destruction/damage/vandalism of property;
- c) VAWA based crimes, which include sexual assault, domestic violence, dating violence, and stalking (VAWA is the Violence Against Women Act, enacted in 1994 codified in part at 42 U.S.C. sections 13701 through 14040); and

- d) Arrests and referrals for disciplinary action for weapons-related law violations, liquor-related law violations, and drug abuse-related law violations.

All personally identifiable information is kept private, but statistical information must be passed along to campus law enforcement regarding the type of incident and its general location (on or off-campus or in the surrounding area, but no addresses are given) for publication in the Annual Security Report and daily campus crime log.

Campus Security Authorities include: presidents, vice-presidents, student affairs/student conduct staff, campus law enforcement/public safety, local police, coaches, athletic directors, student activities staff, human resources staff, Advisors to student organizations, and any other official with significant responsibility for student and campus activities.

XX. ALLEGED VIOLATIONS OF THE TITLE IX POLICY

1. Overview

MCCCD will act on any formal or informal notice/complaint of violation of the Title IX Sexual Harassment policy (“the Policy”) that is received by the Title IX Coordinator or any other Official with Authority by applying these procedures.

The procedures below apply **only** to qualifying allegations of sexual harassment (including sexual assault, dating violence, domestic violence, and stalking, as defined in Section XIII) involving MCCCD students, staff, administrator, or faculty members.

Unionized/other categorized employees are subject to the terms of their agreements/employees’ rights to the extent those agreements do not conflict with this policy.

2. Notice/Complaint

Upon receipt of a complaint or notice to the Title IX Coordinator of an alleged violation of this Policy, MCCCD will initiate a prompt initial assessment to determine the next steps. The Title IX Coordinator will initiate at least one of three responses:

- 1) Offering supportive measures because the Complainant does not want to proceed formally;
- 2) Offering supportive measures and initiating an informal resolution; or
- 3) Offering supportive measures and initiating a Formal Grievance Process including an investigation and a hearing to determine whether or not the Policy has been violated.

3. Initial Assessment

Following receipt of notice or a complaint of an alleged violation of this Policy, the Title IX Coordinator (or designee) will engage in an initial assessment, which is typically one (1) to five (5) business days in duration.

For more information related to the Initial Assessment, please see [The Investigative Process](#).

4. Emergency Removal

In the event an emergency removal is considered, the Title IX Coordinator will follow the procedures outlined in Section VIII of this policy.

5. Dismissal (Mandatory and Discretionary)

Mandatory Dismissal: The Title IX Coordinator **must** dismiss a formal complaint or any allegations therein if, at any time during the investigation or hearing, it is determined that:

- 1) The conduct alleged in the formal complaint would not constitute sexual harassment as defined in the Policy hereinabove, even if proved; and/or
- 2) The conduct did not occur in an educational program or activity controlled by MCCCD (including buildings or property controlled by recognized student organizations), and/or MCCCD does not have control of the Respondent; and/or
- 3) The conduct did not occur against a person in the United States.

Any conduct alleged in the formal complaint that is dismissed under the first (1st) provision above will be referred by the Title IX Coordinator to the Student Code of Conduct administrator (for student Respondents) or the college or district Human Resources administrator (for employee/third party Respondents). Referrals shall take place within three (3) days of the date of the Dismissal Letter being mailed to the parties.

Discretionary Dismissal: The Title IX Coordinator **may** choose to dismiss a formal complaint or any allegations therein if, at any time during the investigation or hearing:

- 1) A Complainant notifies the Title IX Coordinator in writing that the Complainant would like to withdraw the formal complaint or any allegations therein. A Complainant who decides to withdraw a complaint may later request to reinstate it or refile it; or
- 2) The Respondent is no longer enrolled in or employed by the MCCC; or
- 3) Specific circumstances prevent MCCC from gathering evidence sufficient to reach a determination as to the formal complaint or allegations therein.

Upon any dismissal, MCCC will promptly send written notice of the dismissal and the rationale for doing so simultaneously to the parties.

Both mandatory and discretionary dismissal decisions are appealable by any party under the procedures for appeal below.

6. Counterclaims

MCCC is obligated to ensure that the grievance process is not abused for retaliatory purposes. MCCC permits the filing of counterclaims but uses an initial assessment, described above, to assess whether the allegations in the counterclaim are made in good faith. Counterclaims made with retaliatory intent will not be permitted and may constitute a violation of this policy.

Counterclaims determined to have been reported in good faith will be processed using the grievance procedures below. Investigation of such claims may take place after resolution of the underlying initial allegation, in which case a delay may occur.

Counterclaims may also be resolved through the same investigation as the underlying allegation, at the discretion of the Title IX Coordinator.

7. Right to an Advisor

The parties may each have an Advisor of their choice. The Advisor may be a friend, mentor, family member, attorney, or any other individual a party chooses to advise, support, and/or consult with them throughout the resolution process. The parties may choose Advisors from inside or outside of the MCCC community. The Advisor may be present with the Complainant or Respondent for all of their meetings and interviews within the resolution process, if they so choose.

The parties may select whoever they wish to serve as their Advisor as long as the Advisor is eligible and available. "Available" means the party agrees to act as Advisor and has no conflict of interest in doing so. Also, the Advisor cannot have institutionally conflicting roles, such as being a Title IX administrator who has an active role in the matter, or a supervisor who must monitor and implement sanctions.

Choosing an Advisor who is also a witness in the process creates potential for bias and conflict-of-interest. A party who chooses an Advisor who is also a witness can anticipate that issues of potential bias will be explored by the hearing Decision-maker.

If the parties choose an Advisor from the pool available from the MCCC, the Advisor will be trained by the MCCC and be familiar with the MCCC's resolution process. If the parties choose an Advisor from outside the pool of those identified by the MCCC, the Advisor may not have been trained by the MCCC and may not be familiar with MCCC policies and procedures.

Parties also have the right to choose not to have an Advisor in the initial stages of the resolution process, prior to a hearing. If either party chooses not to have an Advisor present in the initial stages of the resolution process, this choice will be documented in the record of the case.

For more information regarding the training received by an Advisor, please see [Advisors FAQ](#).

a. Advisors in Hearings/MCCCD-Appointed Advisor

Under U.S. Department of Education regulations applicable to Title IX, cross-examination is required during the hearing, but must be conducted by the parties' Advisors. The parties are not permitted to directly cross-examine each other or any witnesses. If a party does not have an Advisor for a hearing, MCCCD will appoint a trained Advisor for the limited purpose of conducting cross-examination.

A party may reject this appointment and choose their own Advisor, but they may not proceed with the hearing without an Advisor. If the party's Advisor will not conduct cross-examination, MCCCD will appoint an Advisor who will do so thoroughly, regardless of the participation or non-participation of the advised party in the hearing itself. Extensive questioning of the parties and witnesses may also be conducted by the Decision-maker during the hearing.

b. Pre-Interview Meetings

Advisors may request to meet with the administrative officials conducting interviews/meetings in advance of these interviews or meetings. In order for a pre-interview meeting to be held it must be requested by the Advisor. This pre-meeting allows Advisors to clarify and understand their role and MCCCD's policies and procedures. A pre-interview meeting is not mandatory.

c. Advisor Violations of MCCCD Policy

All Advisors are subject to the same MCCCD policies and procedures, whether they are attorneys or not. Advisors are expected to advise without disrupting proceedings. Advisors may not address MCCCD officials in a meeting or interview unless invited to do so (e.g., asking procedural questions). The Advisor may not speak on behalf of their advisee during any meeting or proceeding and may not speak on behalf of the advisee to the investigator(s) or other Decision-maker except during a hearing proceeding, during cross-examination.

The parties are expected to respond to questions on their own behalf throughout the investigation phase of the resolution process. Although the Advisor generally may not speak on behalf of their advisee, the Advisor may consult with their advisee, either privately as needed, or by conferring or passing notes during any resolution process meeting or interview. For longer or more involved discussions, the parties and their Advisors should ask for breaks to allow for private consultation.

Any Advisor who oversteps their role as defined by this policy will be warned only once. If an Advisor continues to disrupt or otherwise fails to respect the limits of the Advisor role, the meeting will be ended, or other appropriate measures implemented. Subsequently, the Title IX Coordinator will determine how to address the Advisor's non-compliance and future role.

d. Sharing Information with the Advisor

Parties may share documentation and evidentiary information directly with their Advisor or other individuals if they wish. Doing so may help the parties participate more meaningfully in the resolution process.

MCCCD also provides a consent form (FERPA authorization to release) that authorizes the MCCCD to share such information directly with a party's Advisor. The parties must either complete and submit this form to the Title IX Coordinator or provide similar documentation demonstrating consent to a release of information to the Advisor before MCCCD is able to share records with an Advisor.

The MCCCD will not comply with any party's request that all communications be made through their attorney Advisor.

e. Privacy of Records Shared with Advisor

Advisors are expected to maintain the privacy of the records shared with them. These records may not be shared with third parties, disclosed publicly, or used for purposes not explicitly authorized by MCCCCD. MCCCCD may seek to restrict the role of any Advisor who does not respect the sensitive nature of the process or who fails to abide by the MCCCCD's privacy expectations.

f. Expectations of an Advisor

The MCCCCD expects an Advisor to adjust their schedule to allow them to attend MCCCCD meetings when planned. At the sole discretion of the Title IX Coordinator, scheduled meetings may be changed to accommodate an Advisor's inability to attend, if doing so does not cause an unreasonable delay. A Title IX Coordinator's decision as to whether to change meeting dates and times is final.

MCCCCD may also make reasonable provisions to allow an Advisor who cannot attend in person to attend a meeting by telephone, video conferencing, or other similar technologies as may be convenient and available.

g. Expectations of the Parties with Respect to Advisors

A party may elect to change Advisors during the process and is not obligated to use the same Advisor throughout. The parties are expected to inform the Investigator(s) of the identity of their Advisor at least two (2) business days before the date of their first meeting with Investigators (or as soon as possible if a more expeditious meeting is necessary or desired).

The parties are expected to provide timely notice to the Title IX Coordinator if they change Advisors at any time. It is assumed that if a party changes Advisors, consent to share information with the previous Advisor is terminated, and a release for the new Advisor must be secured. Parties are expected to inform the Title IX Coordinator of the identity of their hearing Advisor at least two (2) business days before the hearing.

8. Resolution Processes

Resolution proceedings are private. All persons present at any time during the resolution process are expected to maintain the privacy of the proceedings in accordance with MCCCCD policy. While there is an expectation of privacy around what Investigators share with parties during interviews, the parties have discretion to share their own knowledge and evidence with others if they so choose. MCCCCD encourages parties to discuss this topic with their Advisors before doing so.

9. Formal Grievance Process

The Formal Grievance Process relies on a pool of administrators ("the Pool") to carry out the process. Members of the Pool are announced in an annual distribution of this policy to all students, parents/guardians of students, employees, prospective students, and prospective employees. They are also listed in the Annual Title IX Report published by the Title IX Office.

For more information regarding the Formal Grievance Pool—including selection, training, and responsibilities—please see [Formal Grievance Pool](#).

10. Formal Grievance Process: Notice of Investigation and Allegations

The Title IX Coordinator will provide written notice of allegations (the "NOA") to the Respondent upon commencement of the Formal Grievance Process. This facilitates the Respondent's ability to prepare for the interview and to identify and choose an Advisor to accompany them. The NOA is also copied to the Complainant, who is to be given advance notice of when the NOA will be delivered to the Respondent.

The NOA will include:

- A meaningful summary of all of allegations,
- The identity of the involved parties (if known),

- The precise misconduct being alleged,
- The date and location of the alleged incident(s) (if known),
- The specific policies implicated,
- A statement of the potential sanctions/responsive actions that could result,
- A statement that the MCCCCD presumes the Respondent is not responsible for the reported misconduct unless and until the evidence supports a different determination,
- A statement that determinations of responsibility are made at the conclusion of the process and that the parties will be given an opportunity to inspect and review all directly related and/or relevant evidence obtained during the review and comment period,
- A statement about the MCCCCD's policy on retaliation,
- Information on the need for each party to have an Advisor of their choosing and suggestions for ways to identify an Advisor,
- A statement informing the parties that the MCCCCD's policy prohibits knowingly making false statements, including knowingly submitting false information during the resolution process,
- Detail on how the party may request disability accommodations during the interview process,
- A suggested date and time for an initial meeting (proper time will be given to allow for the selection of an Advisor)
- The name(s) of the Investigator(s), along with a process to identify, in advance of the interview process, to the Title IX Coordinator any conflict of interest that the Investigator(s) may have, and
- An instruction to preserve any evidence that is directly related to the allegations.

Amendments and updates to the NOA may be made as the investigation progresses and more information becomes available regarding the addition or dismissal of various charges.

Notice will be made in writing and will be sent via electronic mail to the MCCCCD-issued email account and mailed via regular mail to the local or permanent address as indicated in official MCCCCD records. Notice is presumed to have been given upon emailing the NOA to the Respondent's MCCCCD-owned email address. The NOA will also be placed in regular mail, postage pre-paid.

11. Resolution Timeline

The MCCCCD will make a good faith effort to complete the resolution process within a sixty-to-ninety (60-90) business day time period, including appeal, which can be extended as necessary for appropriate cause by the Title IX Coordinator, who will provide notice and rationale for any extensions or delays to the parties as appropriate, as well as an estimate of how much additional time will be needed to complete the process.

12. Appointment of Investigators

Once the decision to commence a formal investigation is made, the Title IX Coordinator shall appoint a team of two (2) investigators to investigate the allegations. Appointment of investigators typically occurs within two (2) business days of determining that an investigation should proceed.

13. Ensuring Impartiality

Any individual materially involved in the administration of the resolution process may neither have nor demonstrate a conflict of interest or bias for a party generally, or for a specific Complainant or Respondent. The Title IX Coordinator will vet the assigned Investigator(s) to ensure impartiality by ensuring there are no actual or apparent conflicts of interest or disqualifying biases. The parties may, at any time during the resolution process, raise a concern regarding bias or conflict of interest, and the Title IX Coordinator will determine whether the concern is reasonable and supportable. The Title IX Coordinator's decision allegations of bias or conflict of interest is final.

The Formal Grievance Process involves an objective evaluation of all relevant inculpatory and exculpatory evidence obtained. Credibility determinations may not be based solely on an individual's status or participation as a Complainant, Respondent, or witness.

A Respondent is presumed not to be responsible for the reported misconduct unless and until the Respondent is determined to be responsible for a policy violation by the applicable preponderance of the evidence standard.

14. Delays in the Investigation Process and Interactions with Law Enforcement

The MCCCCD may undertake a short delay in its investigation (several days) if the following circumstances require: a request from law enforcement to temporarily delay the investigation, the need for language assistance, the absence of parties and/or witnesses, and/or accommodations for disabilities or health conditions, or such circumstances as determined by the Title IX Coordinator in their sole discretion.

The MCCCCD will communicate in writing the anticipated duration of the delay and reason to the parties and provide the parties with status updates if necessary. The MCCCCD will promptly resume its investigation and resolution process as soon as feasible. During such a delay, MCCCCD will implement supportive measures, as deemed appropriate.

The MCCCCD's action(s) are not typically altered or precluded on the grounds that civil or criminal charges involving the underlying incident(s) have been filed or that criminal charges have been dismissed or reduced.

15. The Investigation Process

All investigations should be thorough, reliable, impartial, prompt, and fair. Investigations involve interviews with all relevant parties and witnesses; obtaining available, relevant evidence; and identifying sources of expert information, as necessary. Either party may submit a written statement to the Title IX Coordinator outlining their position on the allegations.

All parties have a full and fair opportunity, through the investigation process, to suggest witnesses and questions, to provide evidence and expert witnesses (at their own expense), and to fully review and respond to all evidence on the record.

For additional information regarding steps in the investigative process, please see [Investigative Process](#).

16. Role and Participation of Witnesses in the Investigation

Witnesses (as distinguished from the parties) who are employees or students of the MCCCCD are expected to cooperate with and participate in the MCCCCD's investigation and resolution process. Failure of such witnesses to cooperate with and/or participate in the investigation or resolution process constitutes a violation of this policy and may warrant discipline.

While in-person interviews for parties and all potential witnesses are ideal, circumstances (e.g., study abroad, summer break) may require individuals to be interviewed remotely. Skype, Zoom, FaceTime, WebEx, or similar technologies may be used for interviews if the Investigator(s) determine that timeliness or efficiency dictate a need for remote interviewing. MCCCCD will take appropriate steps to reasonably ensure the security/privacy of remote interviews.

Witnesses may also provide written statements in addition to being interviewed.

17. Recording of Interviews

No audio or video recording of any kind is permitted during investigation meetings.

18. Evidentiary Considerations in the Investigation

The investigation does not consider:

- 1) incidents not directly related to the possible violation, unless they evidence a pattern;
- 2) the character of the parties; or
- 3) questions and evidence about the Complainant's sexual predisposition or prior sexual behavior, unless such questions and evidence about the Complainant's prior sexual behavior are offered to prove that someone other than the Respondent committed the conduct alleged by the Complainant, or if the questions and evidence concern specific incidents of the Complainant's prior sexual behavior with respect to the Respondent and are offered to prove consent.

19. Referral for Hearing

The Title IX Coordinator will refer the matter for a hearing, once the final investigative report is shared with the parties.

The hearing cannot be less than ten (10) business days from the conclusion of the investigation, when the final investigation report is made available to the Parties and the Decision-maker for review and comment, unless all parties, and the Decision-maker agrees to an expedited timeline. This agreement must be in writing.

The Title IX Coordinator will select a Decision-maker that is hired from a list of approved attorneys for any hearing held under the Title IX policy.

20. Hearing Decision-maker Composition

The MCCCCD will designate a single decision-maker. The single Decision-maker will also be the Chair of the hearing. The Decision-maker will not have had any previous involvement with the investigation. The Decision-maker is an out-sourced position. The Decision-maker will not be an MCCCCD employee. The Decision-maker will have had no previous involvement in the matter at hand.

21. Evidentiary Considerations in the Hearing

Any evidence that the Decision-maker determines is relevant and credible may be considered. The hearing does not consider:

- 1) incidents not directly related to the possible violation, unless they evidence a pattern;
- 2) the character of the parties; or
- 3) questions and evidence about the Complainant's sexual predisposition or prior sexual behavior, unless such questions and evidence about the Complainant's prior sexual behavior are offered to prove that someone other than the Respondent committed the conduct alleged by the Complainant, or if the questions and evidence concern specific incidents of the Complainant's prior sexual behavior with respect to the Respondent and are offered to prove consent.

Previous disciplinary action of any kind involving the Respondent may be considered in determining an appropriate sanction upon a determination of responsibility. This information is only considered at the sanction stage of the process.

The parties, if they so choose, may submit a written impact statement prior to the hearing for the consideration of the Decision-maker at the sanction stage of the process when a determination of responsibility is reached.

After post-hearing deliberation, the Decision-maker renders a determination based on the preponderance of the evidence--whether it is more likely than not that the Respondent violated the policy as alleged.

22. Notice of Hearing

No less than ten (10) business days prior to the hearing, the Title IX Coordinator will send notice of the hearing to the parties via email to the individual MCCCCD-issued email address. Once emailed, notice will be presumptively delivered.

The notice will contain:

1. A description of the alleged violation(s), a list of all policies allegedly violated, a description of the applicable procedures, and a statement of the potential sanctions/responsive actions that could result.
2. The time, date, and location of the hearing and a reminder that attendance is mandatory, superseding all other campus activities. Thoroughness and fairness are the primary FOCI of any Title IX hearing process. Hearings are generally scheduled for two (2) hours, but can be extended, as needed at the discretion of the Decision-maker, to ensure that both parties are able to present the information relevant to their position. (e.g., complicated fact pattern, numerous witnesses, etc.).
3. Any technology that will be used to facilitate the hearing.
4. A list of all those who will attend the hearing, along with an invitation to object to the Decision-maker on the basis of demonstrated bias. This must be raised with the Title IX Coordinator at least two (2) business days prior to the hearing.
5. Information on how the hearing will be recorded and on access to the recording for the parties after the hearing.
6. A statement that if any party or witness does not appear at the scheduled hearing, the hearing may be held in their absence. For compelling reasons, the Decision-maker may reschedule the hearing.

7. Notification that the parties may have the assistance of an Advisor of their choosing at the hearing and will be required to have one present for any questions they may desire to ask. The party must notify the Title IX Coordinator if they do not have an Advisor, and the MCCCCD will appoint one. Each party must have an Advisor present. There are no exceptions.
8. An invitation to each party to submit to the Decision-maker an impact statement. Pre-hearing that the Decision-maker will review during any sanction determination.
9. An invitation to contact the Title IX Coordinator to arrange any disability accommodations, language assistance, and/or interpretation services that may be needed at the hearing, at least seven (7) business days prior to the hearing.
10. Direction that the parties may not bring mobile phones/devices into the hearing.

Hearings for possible violations that occur near or after the end of an academic term (assuming the Respondent is still subject to this policy) and are unable to be resolved prior to the end of term will typically be held immediately after the end of the term or during the summer, as needed, to meet the resolution timeline followed by the MCCCCD and remain within the 60-90 business day goal for resolution.

In these cases, if the Respondent is a graduating student, a hold may be placed on graduation and/or official transcripts until the matter is fully resolved (including any appeal). A student facing charges under this policy is not in good standing to graduate.

23. Virtual Hearings

All hearings will occur virtually by use of technology, specifically WebEx or Zoom technology. Each party will be located in a separate room from the Decision-maker, but will be able to see and hear each other. Witnesses will testify in the same room as the Decision-maker, but not the room where the parties and their Advisors sit. The Title IX Coordinator will arrange to use technology to allow remote testimony without compromising the fairness of the hearing.

24. Pre-Hearing Preparation

The Decision-maker, or designee, after any necessary consultation with the parties, Investigator(s) and/or Title IX Coordinator, will provide the names of persons who will be participating in the hearing, all pertinent documentary evidence, and the final investigation report to the parties at least ten (10) business days prior to the hearing. During the ten (10) business day period prior to the hearing, the parties have the opportunity to review and comment on the final investigation report and available evidence.

The Decision-maker, or designee will also provide the parties a copy of the pre-hearing preparation checklist/document. A copy of the pre-hearing preparation checklist/document may be found on the MCCCCD's Title IX webpage: <https://district.maricopa.edu/consumer-information/title-ix/>

25. Hearing Procedures

At the hearing, the Decision-maker has the authority to hear and make determinations on all allegations of sexual harassment and/or retaliation and may also hear and make determinations on any additional alleged policy violations that have occurred in concert with the discrimination, harassment, and/or retaliation, even though those collateral allegations may not specifically fall within the Title IX policy.

Participants at the hearing will include the Decision-maker, the hearing facilitator, the Investigator(s) who conducted the investigation, the parties, Advisors to the parties, any called witnesses, the Title IX Coordinator and anyone providing authorized accommodations or assistive services.

The Decision-maker will answer all questions of procedure. Anyone appearing at the hearing to provide information will respond to questions on their own behalf.

The Decision-maker will allow witnesses who have relevant information to appear at a portion of the hearing in order to respond to specific questions from the Decision-maker and the parties and will then be excused from attendance.

26. Joint Hearings

In hearings involving more than one Respondent or in which two (2) or more Complainants have accused the same individual of substantially similar conduct, the parties may agree to hear the allegations jointly. All parties must agree to a joint hearing. If one party does not agree, the default will be to hold the hearings separately.

In joint hearings, separate determinations of responsibility will be made for each Respondent with respect to each alleged policy violation.

27. Refusal to Submit to Cross-Examination and Inferences

The Decision-maker may not draw any inference solely from a party's or witness's absence from the hearing or refusal to answer cross-examination or other questions.

If charges of policy violations other than sexual harassment are considered at the same hearing, the Decision-maker may consider all evidence it deems relevant.

If a party's Advisor of choice refuses to comply with MCCCDC's established rules of decorum for the hearing, MCCCDC may require the party to use a different Advisor. If a MCCCDC-provided Advisor refuses to comply with the rules of decorum, the Title IX Coordinator may provide that party with a different Advisor to conduct cross-examination on behalf of that party.

28. Recording Hearings

Hearings (but not deliberations) are recorded by MCCCDC for purposes of review in the event of an appeal. The parties may not record the proceedings and no other unauthorized recordings are permitted.

The Decision-maker, the parties, their Advisors, and appropriate administrators of the MCCCDC will be permitted to listen to the recording in a controlled environment determined by the Title IX Coordinator. No person will be given a copy or be allowed to make a copy of the recording.

29. Deliberation, Decision-making, and Standard of Proof

The Decision-maker will deliberate alone to determine, by a preponderance of the evidence, whether the Respondent is responsible or not responsible for the policy violation(s) in question. The deliberation period is not to exceed five (5) days. The Decision-maker may consider the previously submitted party impact statements in determining appropriate sanction(s), when there is a finding of responsibility as to one or more of the allegations.

The Decision-maker will ensure that each of the parties has an opportunity to review any impact statement submitted by the other party(ies). The Decision-maker may--at their discretion--consider the statements, but they are not binding.

The Decision-maker will then prepare a written deliberation statement and deliver it to the Title IX Coordinator, detailing the determination, rationale, the evidence used in support of its determination, the evidence disregarded, credibility assessments, and any sanctions. This report typically should not exceed three (3) to five (5) pages in length and must be submitted electronically to the Title IX Coordinator within two (2) business days of the end of deliberations, unless the Title IX Coordinator grants an extension. If an extension is granted, the Title IX Coordinator will notify the parties in writing of the extension.

30. Notice of Outcome

Using the deliberation statement, the Title IX Coordinator will prepare a Notice of Outcome, which shall include the final determination, rationale, and any applicable sanction(s). The Title IX Coordinator will then provide the Notice of Outcome to the parties and their Advisors within five (5) business days of receiving the Decision-maker's deliberation statement. The Notice of Outcome must be shared with the parties simultaneously.

Notification will be made in writing and will be mailed to the local or permanent address of the parties as indicated in official MCCCDC records, or emailed to the parties' MCCCDC-issued email or otherwise approved account. Once mailed, emailed, and/or received in-person, notice will be presumptively delivered.

For more information about the Notice of Outcome Letter, please see [Notice of Outcome](#).

31. Sanctions

Factors considered when determining a sanction/responsive action may include, but are not limited to:

1. The nature, severity of, and circumstances surrounding the violation(s)
2. The Respondent's disciplinary history
3. Previous allegations or allegations involving similar conduct
4. The need for sanctions/responsive actions to bring an end to the discrimination, harassment, and/or retaliation
5. The need for sanctions/responsive actions to prevent the future recurrence of discrimination, harassment, and/or retaliation
6. The need to remedy the effects of the discrimination, harassment, and/or retaliation on the Complainant and the community
7. Any other information deemed relevant by the Decision-maker

The sanctions will be implemented as soon as is feasible, either upon the outcome of any appeal or the expiration of the window to appeal without an appeal being requested.

The sanctions described in this policy are not exclusive of, and may be in addition to, other actions taken or sanctions imposed by external authorities.

a. Student Sanctions

The following are the usual sanctions that may be imposed upon students or organizations singly or in combination:

1. *Warning*: A formal statement that the conduct was unacceptable and a warning that further violation of any MCCCDCD policy, procedure, or directive will result in more severe sanctions/responsive actions.
2. *Required Counseling*: A mandate to meet with and engage in external counseling to better comprehend the misconduct and its effects.
3. *Probation*: A written reprimand for violation of institutional policy, providing for more severe disciplinary sanctions in the event that the student is found in violation of any institutional policy, procedure, or directive within a specified period of time. Terms of the probation will be articulated and may include denial of specified social privileges, exclusion from co-curricular activities, exclusion from designated areas of campus, no-contact orders, and/or other measures deemed appropriate.
4. *Suspension*: Termination of student status for a definite period of time not to exceed two years and/or until specific criteria are met. Students who return from suspension are automatically placed on probation through the remainder of their tenure as a student at MCCCDCD.
5. *Expulsion*: Permanent termination of student status and revocation of rights to be on any MCCCDCD campus for any reason or to attend MCCCDCD-sponsored events.
6. *Withholding Diploma*: MCCCDCD may withhold a student's diploma for a specified period of time and/or deny a student participation in commencement activities if the student has an allegation pending or as a sanction if the student is found responsible for an alleged violation.
7. *Revocation of Degree*: MCCCDCD reserves the right to revoke a degree previously awarded from MCCCDCD for fraud, misrepresentation, and/or other violation of MCCCDCD policies, procedures, or directives in obtaining the degree, or for other serious violations committed by a student prior to graduation.
8. *Organizational Sanctions*: Deactivation, loss of recognition, loss of some or all privileges (including MCCCDCD registration) for a specified period of time.
9. *Other Actions*: In addition to or in place of the above sanctions, MCCCDCD may assign any other sanctions as deemed appropriate.

b. Employee Sanctions

Responsive actions for an employee who has engaged in harassment, discrimination, and/or retaliation include:

1. Warning – Verbal or Written
2. Performance Improvement/Management Process

3. Required Counseling
4. Required Training or Education
5. Probation
6. Loss of Annual Pay Increase
7. Loss of Oversight or Supervisory Responsibility
8. Demotion
9. Suspension with pay
10. Suspension without pay
11. Termination
12. Other Actions: In addition to or in place of the above sanctions, the MCCCCD may assign any other sanctions as deemed appropriate.

32. Withdrawal or Resignation While Charges Pending

Students: If a student is a Respondent in a pending matter alleging a violation of the Title IX policy, the MCCCCD may place a hold on a student's ability to graduate and/or to receive an official transcript/diploma.

Should a student decide to not participate in the resolution process, the process proceeds absent their participation to a reasonable resolution. Should a student Respondent permanently withdraw from the MCCCCD, the resolution process ends, as the MCCCCD no longer has disciplinary jurisdiction over the withdrawn student. A student who withdraws or leaves while the process is pending may not return to any MCCCCD college. Such exclusion applies to all campuses of MCCCCD. A hold will be placed on their ability to be readmitted. They may also be barred from MCCCCD property and/or events.

However, MCCCCD will continue to address and remedy any systemic issues, variables that may have contributed to the alleged violation(s), and any ongoing effects of the alleged harassment, discrimination, and/or retaliation.

During the resolution process, MCCCCD may put a hold on a responding student's educational record that a disciplinary matter is pending.

Employees: Should an employee Respondent resign with unresolved allegations pending, the resolution process ends, as MCCCCD no longer has disciplinary jurisdiction over the resigned employee. The employee who resigns with unresolved allegations pending is not eligible for rehire with any MCCCCD or any campus of the MCCCCD, and the records retained by the Title IX Coordinator will reflect that status. Human Resources should also be notified and make the appropriate notation on its list of people who are not permitted to be rehired.

However, MCCCCD will continue to address and remedy any systemic issues, variables that contributed to the alleged violation(s), and any ongoing effects of the alleged harassment or discrimination.

All MCCCCD responses to future inquiries regarding employment references for that individual will include that the former employee resigned during a pending disciplinary matter.

33. Appeals

Any party may file a Request for Appeal by submitting such a request in writing to the Title IX Coordinator within five (5) days of the delivery of the Notice of Outcome Letter. Once the five (5) days have passed, the matter will be deemed closed.

The request for appeal will be forwarded to the Provost or Chief Academic Officer for the MCCCCD, acting as the Appeal Chair, for consideration to determine if the request meets the grounds for appeal.

a. Grounds for Appeal

Appeals are limited to the following grounds:

- (A) Procedural irregularity that affected the outcome of the matter;

- (B) New evidence that was not reasonably available at the time the determination regarding responsibility or dismissal was made, that could affect the outcome of the matter; and
- (C) An allegation that the Title IX Coordinator, Investigators, or Decision-maker had a conflict of interest or bias for or against Complainants or Respondents generally or the specific Complainant or Respondent that affected the outcome of the matter.

The Appeal Chair will deny any request for appeal that does not meet the grounds in this policy and will notify the parties and their Advisors in writing of the denial and the rationale. Denials based on lack of grounds shall be communicated to the requesting party within five (5) days of the request for appeal being received by the Appeal Chair.

If any of the grounds in the Request for Appeal meet the grounds in this policy, then the Appeal Chair will:

1. Notify the other party(ies) and their Advisors, the Title IX Coordinator, and, when appropriate, the investigators and/or the original Decision-maker.
2. Provide the other party(ies) and their Advisors, the Title IX Coordinator, and, when appropriate, the Investigators and/or the original Decision-maker a copy of the appeal request with the approved grounds outlined.
3. Provide the other party(ies) and their Advisors, the Title IX Coordinator, and when appropriate, the investigators and/or the original Decision-maker five (5) days to submit a response to the portion of the appeal that was approved and involves them.
4. Collect any additional information needed and all documentation regarding the approved grounds and the subsequent responses and render a decision in no more than fifteen (15) days from the date the Request for Appeal was filed, barring exigent circumstances. All decisions apply the preponderance of the evidence.
5. Prepare a Notice of Appeal Outcome letter and send it to all parties simultaneously, which includes the decision on each approved ground and rationale for each decision. The Notice of Appeal Outcome letter will also outline specific instructions for remand or reconsideration of any sanction imposed by the Decision-maker, which MCCCCD is permitted to share according to state or federal law.

The Notice of Appeal Outcome letter will be mailed to the local or permanent address of the parties as indicated in official institutional records and emailed to the parties' MCCCCD-issued email or otherwise approved account. Notice is presumed to have been made once the letter is emailed.

b. Sanctions Status During the Appeal

Any sanctions imposed as a result of the hearing are stayed during the appeal process. Supportive measures may be continued or reinstated, subject to the supportive measures procedure in Section VII of this policy.

MCCCCD may still place holds on official transcripts, diplomas, graduations, and course registration pending the outcome of an appeal when the original sanctions included separation.

34. Long-Term Remedies/Other Actions

Following the conclusion of the resolution process, and in addition to any sanctions implemented, the Title IX Coordinator may implement additional long-term remedies or actions with respect to the parties and/or the campus community that are intended to stop the harassment, and/or retaliation, remedy the effects, and prevent reoccurrence.

These remedies/actions may include, but are not limited to:

1. Referral to community services including counseling and health services
2. Referral to the Employee Assistance Program
3. Education to the individual and/or the community
4. Permanent alteration of work arrangements for employees

5. Provision of campus safety escorts
6. Climate surveys
7. Policy modification and/or training
8. Implementation of long-term contact limitations between the parties
9. Implementation of adjustments to academic deadlines, course schedules, etc.

At the discretion of the Title IX Coordinator, certain long-term support or measures may also be provided to the parties even if no policy violation is found.

When no policy violation is found, the Title IX Coordinator will address any remedies owed by the MCCCDC to the Respondent to ensure that the Respondent did not experience effective denial of educational access.

The MCCCDC will maintain the privacy of any Party subject to any long-term remedies/actions/measures, provided doing so does not impair the MCCCDC's ability to provide these services.

35. Failure to Comply with Sanctions and/or Interim and Long-term Remedies and/or Responsive Actions

All parties are expected to comply with the assigned sanctions, responsive actions, and/or corrective actions within the timeframe specified by the final Decision-maker (including the Appeal Chair).

Failure to abide by the sanction(s)/action(s) imposed by the date specified, whether by refusal, neglect, or any other reason, may result in additional sanction(s)/action(s), including suspension, expulsion, and/or termination from the MCCCDC.

A suspension will only be lifted when compliance is achieved to the satisfaction of the Title IX Coordinator.

36. Recordkeeping

MCCCDC will maintain for a period of seven (7) years records of:

1. Each sexual harassment investigation including any determination regarding responsibility and any audio or audiovisual recording or transcript required under federal regulation;
2. Any disciplinary sanctions imposed on the Respondent;
3. Any remedies provided to the Complainant designed to restore or preserve equal access to the MCCCDC's education program or activity;
4. Any appeal and the result therefrom;
5. Any Informal Resolution and the result therefrom;
6. All materials used to train Title IX Coordinators, investigators, Decision-makers, and any person who facilitates an Informal Resolution process. MCCCDC will make these training materials publicly available on MCCCDC's website. (Note: If the MCCCDC does not maintain a website, MCCCDC must make these materials available upon request for inspection by members of the public.); and
7. Any actions, including any supportive measures, taken in response to a report or formal complaint of sexual harassment, including:
 - a. The basis for all conclusions that the response was not deliberately indifferent;
 - b. Any measures designed to restore or preserve equal access to the MCCCDC's education program or activity; and
 - c. If no supportive measures were provided to the Complainant, document the reasons why such a response was not clearly unreasonable in light of the known circumstances.

The MCCCDC will also maintain any and all records in accordance with state and federal laws. The MCCCDC will follow the destruction of records policy as outlined by the state of Arizona.

37. Disabilities Accommodations in the Resolution Process

MCCCDC is committed to providing reasonable accommodations and support to qualified students, employees, or others with disabilities to ensure equal access to the MCCCDC's resolution process. Anyone needing such accommodation should contact the Title IX Coordinator and request the accommodation. The Title IX Coordinator shall seek consultation from the college Disability Resource Services Manager (for students) or Human Resources (for employees).

38. Mandatory Training

This policy requires that annual training for the Title IX Coordinators, investigators, decision-makers, and any person who facilitates an informal resolution process will include:

1. the definition of sexual harassment under this policy,
2. the scope of the MCCCDS education program or activity,
3. how to conduct an investigation and grievance process including hearings, appeals, and informal resolution processes, as applicable, and
4. how to serve impartially, including by avoiding prejudgment of the facts at issue, conflicts of interest, and bias.

Decision-makers will receive annual training on any technology to be used at a live hearing and on issues of relevance of questions and evidence, including when questions and evidence about the complainant's sexual predisposition or prior sexual behavior are not relevant.

Investigators will receive annual training on issues of relevance to create an investigative report that fairly summarizes relevant evidence.

Any materials used to train Title IX Coordinators, investigators, decision-makers, and any person who facilitates an informal resolution process, must not rely on sex stereotypes and must promote impartial investigations and adjudications of formal complaints of sexual harassment.

39. Revision of this Policy and Procedures

This policy and procedures supersede any previous policy(ies) addressing Title IX sexual harassment and discrimination. The policy (administrative regulation) will be reviewed and updated as needed by the Title IX Coordinator, in consultation with any other stakeholders deemed necessary by the Title IX Coordinator and upon approval by the Chancellor. MCCCDS reserves the right to make changes to this document as necessary, and once those changes are posted online, they are in effect.

During the resolution process, the Title IX Coordinator may make minor modifications to procedures that do not materially jeopardize the fairness owed to any party, such as to accommodate summer schedules. District legal may also vary procedures materially with notice (on the institutional website, with the appropriate effective date identified) upon determining that changes to law or regulation require policy or procedural alterations not reflected in this policy and procedures.

If government laws or regulations change – or court decisions alter – the requirements in a way that impacts this document, this document will be construed to comply with the most recent government regulations or holdings.

This document does not create legally enforceable protections beyond the protection of the background state and federal laws which frame such policies and codes, generally.

This policy and procedures are effective August 14, 2020.

ATIXA 2020 ONE POLICY, TWO PROCEDURES MODEL.

USE AND ADAPTATION OF THIS MODEL WITH CITATION TO ATIXA IS PERMITTED THROUGH A LIMITED LICENSE TO MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT ALL OTHER RIGHTS.

AMENDED by Direct Approval from the Chancellor, September 20, 2021

AMENDED by Direct Approval from the Chancellor, September 16, 2020

ADOPTED by Direct Approval from the Chancellor, August 3, 2020

Appendix ND-2 Discrimination Complaint Procedures for Students

I. This procedure provides for the prompt and equitable resolution of discrimination and harassment complaints brought by students against a member of the college community that is based on membership in a “protected class/category” (not otherwise addressed in the Title IX Sexual Misconduct Policy).

1. Complaints may be brought under this procedure for discrimination based on membership in a protected group: race, color, religion, national origin, citizenship status (including document abuse), sex (including pregnancy and sexual harassment) not including those cases under the Title IX Policy Jurisdiction), sexual orientation, gender identity, age, veteran status, physical or mental disability, or genetic information.
2. All members of the college community should act promptly upon receipt of an allegation of conduct that might constitute harassment and/or discrimination. Any member of the college community should refer a person who might be a victim of such conduct the college’s Equal Opportunity & Title IX Regional Director [Regional Director] (or designee) or to the district’s Title IX, ADA/504 Coordinator who are both responsible for resolving complaints of unlawful harassment/discrimination.
3. Students who believe they are experiencing sexual harassment IN VIOLATION OF TITLE IX SHOULD submit a written complaint under [Administrative Regulation 5.1.16, Title IX Sexual Harassment Policy](#).
4. Students who wish to file a complaint related to disability accommodations should first exhaust the remedies outlined under [A.R. 2.8 Students With Disabilities](#).
5. Students who feel they have been treated unfairly or unjustly by a faculty member regarding instruction or a grade **not involving discrimination based on membership in a protected group (as outlined above)** should utilize the **S-6 INSTRUCTIONAL GRIEVANCE PROCESS**.

II. College officials should take all necessary steps to ensure the prompt and equitable resolution of any complaint of harassment/discrimination. The typical time period to resolve allegations under this policy is sixty (60) business days. MCCCDC will make a good faith effort to complete the resolution process within this period. any extenuating circumstances that extend this time period will be communicated to the complainant and respondent and noted in the investigative file.

1. The term ‘complainant’ refers to an individual who has experienced the alleged prohibited conduct. only the person who has experienced the alleged prohibited conduct may file a complaint under this policy. The term “Respondent” refers to an individual who has been accused of engaging in prohibited conduct.
2. The written complaint must identify the action, decision, conduct, or basis that the student believes constitutes prohibited discrimination or harassment. If the complaint does not contain the above-referenced information, the regional Title IX Director Or district Title IX, ADA/504 Coordinator will request clarification.
3. Every effort will be made to address the complaint consistent with the complainant’s desires. However, under certain circumstances, the MCCCDC may have a legal obligation to identify and remedy discrimination or harassment, irrespective of whether a formal complaint is actually filed and even if the complainant would prefer no action be taken.

III. Optional Informal Resolution of Discrimination Complaints

1. Before filing a formal complaint under this procedure, the student may attempt to resolve the problem through informal discussions with the respondent. Students are not required to use the informal resolution process before filing a formal complaint.
2. The student should work with the regional director to schedule and facilitate the informal resolution meeting.
3. The informal resolution process consists of:
 - a. The discussion between parties regarding the allegations,
 - b. The response to the allegations, and
 - c. A written resolution agreement between the parties as to the disposition of the allegations. The regional director shall be involved with the drafting of the written resolution agreement.

4. Both parties must sign the written resolution agreement in order to deem the matter closed.
5. There is no appeal to the informal resolution process. The Regional Director is charged with ensuring the disposition (and any actions stated therein) is completed.
6. At any time before the signing of the resolution agreement, the student can end the informal process and initiate the formal process.
7. If the complaint cannot be informally resolved to the satisfaction of the student, the student has the right to file a formal complaint and to proceed under the formal resolution procedures.

IV. Formal Resolution of Discrimination Complaints

1. A student who contends that unlawful or MCCCCD-prohibited discrimination has occurred may file a formal complaint by contacting the Regional Director at each respective college or center or the district's Title IX, ADA/504 Coordinator if the respondent is a district office employee.
2. A formal complaint is a signed and dated document submitted by the complainant (an email from the student will suffice) alleging a policy violation by a respondent, a summary of allegations, and requesting that the MCCCCD investigate the allegation(s).
3. The formal process consists of a signed complaint, preliminary assessment, an investigation, a determination regarding the allegation, appropriate corrective action or sanctions when the complaint is substantiated, and an offered appeal process.
4. Upon receipt of a formal complaint of discrimination or harassment, the regional director shall conduct a preliminary assessment to determine whether, if substantiated, the behavior or conduct reported would constitute a violation of MCCCCD policy. The Regional Director Has sole discretion to determine whether further investigation is necessary in any particular case. In circumstances where a complaint will not be investigated, the complaint will be notified.
5. Following the determination that an investigation should take place, the Regional Director shall appoint two (2) trained investigators to investigate the allegations. The complainant, respondent and/or investigators shall disclose any potential conflicts of interest or bias regarding the complaint to the Regional Director.
6. Regional Director will provide written notice of allegations (the "NOA") to the respondent upon commencement of the formal resolution process. The NOA will include:
 - a summary of all allegations,
 - specific policies implicated,
 - a statement of the potential sanctions/corrective actions that could result,
 - a statement that the applicable evidentiary standard is a preponderance of the evidence,
 - a statement that the MCCCCD presumes the respondent is not responsible for the reported misconduct unless and until the evidence supports a determination of a policy violation,
 - the name(s) of the assigned investigator(s),
 - detail on how the party may request disability accommodations during the interview process,
 - a statement about MCCCCD'S policy on retaliation, and
 - an instruction to preserve any evidence that is directly related to the allegations.
7. Amendments and updates to the NOA may be made as the investigation progresses and more information becomes available. Notice is presumed to have been given upon emailing the NOA to the respondent's MCCCCD-owned email address.
8. The investigators shall review all information provided to the Regional Director and will interview individuals who potentially possess relevant evidence as identified by the parties and determined by the investigators. the investigators shall focus on the allegation(s) of policy violation, assess the relevance of witnesses and evidence, and work efficiently to conclude the investigation promptly (within 60 business days), as outlined in this procedure. The investigators shall deliver to the Regional Director the investigation report, which shall include:
 - a. a summary of the allegations,
 - b. a written determination (including rationale) regarding the allegation and whether a policy violation is substantiated or unsubstantiated, and,
 - c. any recommendation(s) addressing substantiated findings.
9. Within ten (10) business days following receipt of the results of the investigation the Regional Director will accept or recommend further investigation. The Regional Director will provide a written notification of the

investigation outcome simultaneously to the complaint and respondent. This outcome notification will include a summary of the investigator's written findings.

V. Sanctions And Corrective Action

1. The Vice President of Student Affairs will implement student sanctions as appropriate under [A.R. 2.5 Student Rights And Responsibilities Policy](#). If the respondent is an employee, the Vice President of Student Affairs will report the findings of fact and policy conclusions to the college or district human resources who will issue appropriate disciplinary sanctions or corrective action.
2. MCCCDC has clear policy goals to prevent and correct discrimination or harassment, therefore, possible sanctions include, but are not limited to: written warning, counseling, suspension, transfer, mandatory training, or dismissal of the respondent. As appropriate to remedy the effects of policy violations, action on behalf of complainants, such as employee assistance, professional counseling, voluntary transfer, etc., may also be offered. The institution will take appropriate steps to prevent further occurrences.

VI. Supportive Measures

For any allegation of unlawful discrimination, the MCCCDC may provide supportive measures to assist or protect the parties during the pendency of the investigation. Such measures may include academic adjustments, arranging for changes in class schedules, or other appropriate temporary measures.

VII. Appeal Right

1. A complaint or respondent who is not satisfied with the outcome has five (5) business days to submit an appeal of the decision in writing, to the College President. If a conflict of interest prevents the College President from serving as the appeal officer, then the district Provost shall serve as the appeal officer. For respondents who are district office employees, the Provost shall serve as the appeal officer. If the provost has a conflict of interest, a College President may serve as the appeal officer. Conflicts of interest requiring a change of appeal officer shall be communicated to the requesting party.

GROUND FOR APPEAL. Appeals are limited under the following grounds:

- A) Procedural irregularity that affected the outcome of the matter; **or**,
- B) New evidence that was not reasonably available at the time the determination regarding responsibility or dismissal was made that could affect the outcome of the matter.

2. The appeal request must state the grounds for appeal and why the complainant or respondent believes the outcome was improper.
3. Denials based on lack of grounds shall be communicated to the requesting party within five (5) business days of the request for appeal being received by the appeal officer.
4. If any grounds for appeal are met, the appeal officer will review the results of the investigation and written findings and respond to the request within ten (10) business days from receipt of the request. The ten-day review and response period may be extended for extenuating circumstances, with notice to all parties. The appeal officer may accept, reject, or modify the investigatory outcome. If the appeal officer determines that it is necessary to remedy a substantial deficiency caused by one of the appeal grounds above, the case file will be reopened and assigned for further investigation. If necessary, other investigator(s) may be assigned. If the appeal officer determines that the investigation was thorough and complete and that the decision is supported by the evidence, he or she will affirm the investigation outcome. At this point, the student has exhausted the Discrimination Complaint Procedure for Students.

VIII. Maintenance of Documentation

Documentation resulting from each level in the Formal Resolution Process (including witness statements, investigative notes, etc.) will be maintained in accordance with state and MCCCDC document retention guidelines, [A.R. 4.15 Retrieval, Disclosure and Retention of Records](#).

IX. Confidentiality of Proceedings

Every effort will be made by the college and MCCCCD to protect the confidentiality of the parties during the processing of complaints under this procedure. Records will be maintained in a confidential manner to the extent permitted by law and insofar as they do not interfere with MCCCCD's legal obligation to investigate and resolve issues of discrimination.

X. Retaliation Prohibited

Retaliation against a person who has filed a complaint or against any witness questioned during an investigation is strictly prohibited. Any retaliatory action by instructors, supervisors, managers, academic professionals, administrators, or other employees who have the authority to take adverse action against a complainant or witness is prohibited and may be grounds for disciplinary action. As per A.R. 5.1.15 Retaliation Prohibited, "MCCCCD" strictly prohibits an adverse action that might deter a reasonable person from participating in activity protected by anti-discrimination laws.

XI. False Statements Prohibited

Any individual who knowingly provides false information pursuant to filing a discrimination charge or during the investigation of a discrimination charge will be subject to appropriate discipline under the Student-Conduct Code or appropriate employee Administrative Regulation.

External Filing of Discrimination Complaint

MCCCCD encourages students to use the MCCCCD Discrimination Complaint Procedure for Students to resolve discrimination concerns. Students also have the right to file civil rights complaints with appropriate external agencies. No retaliation will be taken against a person for filing a complaint with an external agency. The following agency accepts discrimination charges filed by, or on behalf of, students:

Office for Civil Rights, Region VIII (OCR)

Denver Office

U.S. Department of Education

Federal Building

1244 Speer Boulevard, Suite 310

Denver, Colorado 80204-3582

Phone: 303-844-5695

Fax: 303-844-4303

TDD: 303-844-3417

E-mail: OCR_Denver@ed.gov

AMENDED by the Administrative Regulations Approval Process, June 12, 2023

AMENDED by Direct Approval from the Chancellor, April 1, 2015

*****END SECTION*****

2.4.6 Emissions Control Compliance

Pursuant to ARS §15-1444 C. no vehicle shall be allowed to park in any college parking lot unless it complies with ARS §49-542 (the annual vehicle emissions inspection program). At the time of course registration, every out-of-county and out-of-state student will be required to sign an affidavit stating that the student's vehicle meets the requirements of ARS §49-542. Vehicles that are not in compliance are subject to being towed at the owner's expense.

2.4.8 Petition Signature Solicitation

1. This regulation shall govern access to college premises by representatives who wish to solicit signatures on petitions for the purpose of submission of a ballot proposition to voters, or nomination of a candidate for elective office, in a city-, county-, or state-wide election.
2. Each college president shall designate general hours of accessibility for solicitation and a location on college premises where all representatives on behalf of any candidate or ballot proposition may solicit signatures. The location shall

be in a common area where the solicitation will not serve as an obstruction to student activities or otherwise disrupt the college environment.

3. All solicitation must take place in designated areas. Standard space may include one or two tables and chairs. Campus restrictions regarding amplification will apply. Representatives may not distribute or make available to students, employees, or college visitors any tangible item, except for informational literature about the proposed candidate or ballot initiative.
4. Representatives shall notify the designated official at each college or center for their intent to be present on college premises no fewer than three working days prior to soliciting signatures. Upon obtaining authorization, representatives shall be provided a written version of this regulation.

Specific procedures on how to implement the Petition Signature regulation can be found in [Appendix S-14](#).

2.4.9 Use of College Grounds by Non-MCCCD-Affiliated Users

In contrast to traditional public forums such as a public square, park, or right of way, Maricopa's campuses are dedicated by law to the purpose of formal education. They are, and have been since their creation, for the use and benefit of prospective and enrolled students, the Maricopa employees who serve them, and those who are invited to campus by members of the College community to attend or participate in sponsored events. The Maricopa County Community College District (MCCCD) has a long history of regulating the time, place, and manner in which expressive activities are conducted on campuses, for the purposes of avoiding disruption or interference with its educational activities, and protecting the rights of the members of the campus community and their invited guests to express themselves and access information. While members of the general community always have been welcome to share their ideas with the campus community, they are subject to reasonable, content-neutral regulation of the time, place and manner of the event and to the institution's mission-based priorities – including but not limited to the need to provide an environment conducive to teaching and learning.

POLICY

This administrative regulation governs use of the college grounds, defined as the open areas and walkways of the campus by non-MCCCD-affiliated users. Use of college facilities is governed by a separate administrative regulation. Parking lots are not available for events and activities other than those sponsored and authorized by the College president.

Camping is not permitted anywhere on the campuses. Camping is defined as the use of college grounds or facilities for living accommodations or housing purposes such as overnight sleeping or making preparations for overnight sleeping (including the laying down of bedding for the purpose of sleeping), the making of any fire for cooking, lighting or warmth, or the erection or use of tents, motor vehicles, or other structures for living or shelter. These activities constitute camping when it reasonably appears, in light of all the circumstances, the participants conducting these activities intend to use or are using the facilities or grounds for living accommodations or housing, regardless of the duration or other purpose of the use.

Lawful use of college grounds for events or expressive activities by individuals, groups, and organizations may be authorized by college officials when the events and activities are lawful and consistent with the non-profit, educational nature of the campus, authorized and conducted in accordance with MCCCD policies, administrative regulations and priorities, and compliant with reasonable restrictions as to time, place, and manner. The content of the expression will not be a factor in authorizing, locating, or scheduling decisions. However, events and activities will not be permitted to disrupt or obstruct the teaching, research, or administrative functioning of the College by means of physical obstacles and crowds, by the creation of sound or noise that would interfere with teaching, learning, and the conduct of College business, or by any other means. Each College president will designate a Responsible College Official with delegable authority to approve, locate, and schedule use of college grounds.

Permit Application: Any non-MCCCD-affiliated organization, group, or individual desiring to use campus grounds for an event or activity must submit a request form to the Responsible College Official in advance of the use date.

If the activities proposed in the application are limited to low-impact, non-commercial activities the request form shall be submitted at least two business days in advance of the expected use date. For purposes of this administrative regulation, “low-impact, non-commercial activities” are defined as: (1) activities that do not seek to sell or promote a product or service for direct or indirect financial gain; (2) activities that are limited to gatherings of five people or less at any given time; and (3) activities that do not involve machinery, temporary structures, tables, chairs, displays or electronic equipment, including amplifiers, or the distribution of food products.

For events that are not low-impact, non-commercial activities, the request form shall be submitted at least seven business days before the expected use. The additional advance time is required to allow the College to prepare for conditions that may affect the flow of foot traffic, involve signs and displays, create crowds, involve significant numbers of participants, or require the use of significant amounts of space and/or use of equipment and resources.

Designated Areas: Because each College has a limited amount of outdoor space, activities and events sponsored by non-MCCCD-affiliated users, including speech and literature distribution, shall be restricted to designated areas. For each College, the Responsible College Official shall establish specific designated areas for such activities. A written description of these areas shall be maintained at the office of Student Life and Leadership for each College. Consistent with the goal of providing a healthy, comfortable, and educationally productive environment, the Responsible College Official should attempt to locate the designated areas in prominent locations on campus where there is a likelihood of significant pedestrian traffic. The designated areas shall not be located in building stairways and entryways, parking lots, or congested areas. The Responsible College Official will make every effort to assign users to their requested space when a specific space is desired. However, in order to ensure the potential success of all scheduled events, the College reserves the right to assign an event or activity to the area the College deems most appropriate in light of the campus capacity, other activities scheduled, and the type of event or activity being planned.

Use Fees and Proof of Insurance: To offset the costs associated with the use of college grounds, non-MCCCD-affiliated users shall be required to pay a fee of \$50 per day or \$125 per week. In order to protect the health and safety of College students, faculty and staff and to protect MCCCD resources, non-MCCCD-affiliated users shall also be required to provide proof of insurance that indicates at least \$1 million in general liability coverage and names the MCCCD as an additional insured for the anticipated use date.

The fee and proof-of-insurance provisions of this Administrative Regulation shall not be applied to low-impact, non-commercial users. A user may request designation as a low-impact, non-commercial user from the applicable College’s Responsible College Official. Any questions or comments about the criteria for approval or denial of such request shall be directed to the District Ombudsman.

Permits: The approved request form will describe the location of the authorized activity and any other restrictions specific to the event. Violation of the terms of the permit, District policy, administrative regulation or law shall be grounds for immediate revocation of the permit, and the individual violators and their organizations may be banned from the campus.

Priorities and Criteria for Approval of Permits: The content or subject of the proposed expressive activity or event will not affect approval of the application. Availability of space is not guaranteed. Reservations shall be approved on a space-available basis and will be addressed on a first come-first served basis, subject to the following priorities and criteria for the use and scheduling of space on campus grounds:

Scheduling Priorities (in order)

1. The use of facilities and grounds for the operations of the College. For example, there are times when the college is unusually crowded by members of the campus community, such as registration and orientation at the beginning of the semester. Other uses may reasonably be precluded during those times.
2. Activities and events sponsored by the College administration.
3. Activities and events sponsored by MCCCD student organizations or employee groups.
4. Activities of non-MCCCD-affiliated individuals and organizations.

5. Commercial advertising or activities.

Criteria

1. Capacity of college grounds to accommodate the number of participants at the scheduled time and proposed location.
2. Capacity of College Safety staff to provide security for all events and activities scheduled at the time.
3. Possible interference or conflict with College operations or other scheduled activities and events on the grounds.
4. General feasibility of hosting the event as proposed.

Other Policies: This administrative regulation will be applied in conjunction and coordination with all other MCCCDC policies and administrative regulations and College processes and procedures, including but not limited to regulations on facilities use, signage, sales of alcohol and/or food, and solicitation of donations.

Specific procedures on how to implement the Use of College Grounds regulation can be found in [Appendix S-15](#).

2.4.10 Children on Campus

Children (younger than 18) may not attend any class unless they are officially registered for the class.

Children will not be allowed on campus unless participating in an authorized college program or under the supervision of an adult.

2.4.11 Crime Awareness and Campus Security Act

Federal legislation requires the college to maintain data on the types and number of crimes on college property as well as policies dealing with campus security. To obtain additional information on this subject, contact the college Safety and Security Department.

2.4.15 Campus Sex Crimes Prevention Act

Federal legislation requires that the MCCCDC establish notification procedures concerning the presence of registered sex offenders enrolled either as students or those working for the institution. The Registered Sex Offender Notification Procedure is outlined in Appendix item S-18.

ADOPTED by Direct Approval from the Chancellor, March 6, 2019

Appendix Item S-18: Maricopa County Community College District Registered Sex Offender Notification Procedure

The Campus Sex Crime Prevention Act (CSCPA), (section 1601 of Public Law 106-386), is a Federal Law enacted on October 28, 2000. In compliance with this law, the Maricopa County Community College District (MCCCDC) will work in collaboration with the Sheriff's Department to identify convicted registered sex offenders enrolled as students at one of MCCCDC's colleges or working at the District office or at any of the MCCCDC colleges (in paid or unpaid positions).

GENERAL INFORMATION

- I. In accordance with the CSCPA, the MCCCDC will provide on its Sex Offender Information Website, found [Sex Offender Information and Notification](#) website, a link to the Arizona Sex Offender Registry website and instructions on how to access it.
- II. Arizona Revised Statutes require persons convicted of any of the following 21 different offenses to register as sex offenders: 1) unlawful imprisonment if the victim is under 18 years of age; 2) kidnapping if the victim is under 18 years of age; 3) sexual abuse if the victim is under 18 years of age; 4) sexual conduct with a minor; 5) sexual assault; 6) sexual assault of a spouse; 7) molestation of a child; 8) continuous sexual abuse of a child; 9) taking a child for the purpose of prostitution; 10) child prostitution; 11) commercial sexual exploitation of a minor; 12) sexual exploitation of a minor; 13) luring a minor for sexual exploitation; 14)

aggravated luring a minor for sexual exploitation; 15) unlawful age misrepresentation for the purpose of committing a sexual offense 16) sex trafficking of a minor; 17) a second or subsequent violation of indecent exposure to a person under 15 years of age; 18) a second or subsequent violation of public sexual indecency to a minor under the age of 15; 19) a third or subsequent violation of indecent exposure; 20) a third or subsequent violation of public sexual indecency; and 21) violations relating to the failure to register as a sex offender. (See, [A.R.S. §13-3821](#)).

- III. The Arizona Department of Public Safety classifies sex offenders according to levels. The levels consist of Level 1: Low risk to the community, Level 2: Intermediate risk to the community, and Level 3: High risk to the community.
- IV. By law, Registered Sex Offenders (RSO) are required to contact the Maricopa County Sheriff's office or local police agency when they enroll in or are employed at a college—in either paid or unpaid status. ([A.R.S. § 13-3821](#)).
- a. Level Two and Level Three Offender's Obligation to Notify the College:

STUDENTS

- i. **Current Students** who are enrolled and receive their final classification or a change in classification as a Level 2 or Level 3 sex offender during their period of enrollment must notify the Campus Public Safety Officer within five (5) business days of the start of the semester. Campus Public Safety Officers for each college and for the district office can be found at the [MCCCD Police](#) website. The Campus safety officer will schedule a meeting with the Dean of Students (or designee) and the Registered Sex Offender student to take place within ten (10) days of the notification to Public Safety.
 - 1. Failure to comply with this procedure may lead to discipline under the Student Code of Conduct as well as possible criminal penalty as outlined in Arizona state law.
- ii. **Potential Students** who have been designated as a Level 2 or Level 3 sex offender must notify the Campus Public Safety Officer to arrange a meeting when they intend to enroll at a College. Campus Public Safety Officers for each college and for the district office can be found at the [MCCCD Police](#) website. This meeting must take place at least ten (10) calendar days prior to the start of classes. The meeting shall include the RSO, the Dean of Students (or designee), and the Campus Public Safety Officer.)
 - 1. A person who is classified as a Level Two or Three sex offender has been admitted to MCCCD and who has failed to timely to register pursuant to these procedures may be subject to discipline under the Student Code of Conduct as well as possible criminal penalties as outlined in Arizona state law.

EMPLOYEES

- iii. **Current Employees** who receive their final classification or a change in classification as a Level 2 or Level 3 sex offender during their period of employment must immediately notify the Campus Public Safety Officer. The campus public safety officer will arrange meeting with the Human Resources Manager (or designee) at the individual campus and the Registered Sex Offender employee. Campus Public Safety Officers for each college and for the district office can be found at the [MCCCD Police](#) website. The meeting with the college human resources manager and the

Campus Public Safety Officer must take place within ten (10) days of the original notification to Public Safety.

- iv. **Potential Employees** who have been classified as a Level 2 or Level 3 sex offender must notify the Campus Public Safety Officer to arrange a meeting when they are offered employment at the College. Campus Public Safety Officers for each college and for the district office can be found at the [MCCCD Police](#) website. This meeting must take place at least ten (10) calendar days prior to the start of employment. The meeting shall include the RSO, the college human resources manager and the Campus Public Safety Officer (or their designees).

V. COLLEGE OFFICIALS' MEETING WITH LEVEL 2 OR LEVEL 3 SEX OFFENDER

- a. After notification that a student or employee has been classified as a Level Two or Three Sex Offender, MCCCD Public Safety will collect information from the RSO student or employee, probation/parole officer, Sheriff's Office, and/or arresting agency regarding the type of crime, conditions for probation, and/or level of risk.
- b. For Students: MCCCD Public Safety will notify the Dean of Student Affairs (or designee) when a RSO has enrolled or expressed a desire to enroll at a MCCCD college. A representative from the Student Affairs office shall participate in the required meeting with the RSO.
 - i. An RSO identification must be placed in the Advocate online system. The identification should include a summary of the offense/court-ordered conditions in place upon release, information from the parole/probation officer, and possible interventions needed at the college/District level.
- c. For Employees: MCCCD Public Safety will notify District and college Human Resources (or designee) when an RSO has registered due to being offered employment with the MCCCD or is a current employee who has been classified as a Level Two or Three Sex Offender. A representative from District and the identified college's Human Resources department shall participate in the required meeting with the RSO.
 - i. An RSO identification must be placed in the employee's personnel file. The identification should include a summary of the offense/court-ordered conditions in place upon release, information from the parole/probation officer, and possible interventions needed at the college/District level.
- d. At the meeting referred to above, the student or employee who is classified as a Level Two or Three sex offender will be advised of the following information:
 - i. The College's knowledge of his/her final classification.
 - ii. The College's obligation to provide public access to Level 2 & 3 sex offender information through its Department of Public Safety.
 - iii. Any restrictions that will be imposed on the sex offender—based on any Court restrictions, restraining orders, or orders of protection that may be in place—and the duration of such restrictions.
 - iv. If the offender is classified at Level 3, he/she is further informed of:
 - 1. The College's policy of posting notice at each college campus within two (2) days of receipt of the RSO's information, regardless of when the meeting occurs.

2. The Level 3 RSO will receive a copy of the community notification the College intends to post.
 3. The functional areas of the College which will be provided with the public notification that will be posted.
- v. At any time, the Department of Public Safety can communicate with the offender's parole/probation officer.
- VI. FERPA: The CSCPA further amends the Family Educational Rights and Privacy Act of 1974 (FERPA) to clarify that nothing in the Act can prohibit an educational institution from disclosing information provided to the institution concerning the presence of registered sex offenders.
- VII. ANNUAL AND OFF-CYCLE REVIEWS: Public Safety and the Student Affairs Dean (or designee) or Human Resources representative, depending on the status of the RSO, shall meet on an annual basis to review the conditions of enrollment, employment, and campus engagement. Additional, off cycle, reviews should be conducted when an RSO student or employee transfers within MCCCCD or new information about criminal conduct has been received. District imposed conditions may be removed, added, or altered based on changes in enrollment location(s), legal case status, new criminal activity, and/or disciplinary standing. Both Public Safety and Dean of Students or Human Resources professionals, for students and employees, respectively, shall maintain documentation regarding all initial, annual, and off-cycle meetings and reviews.
- VIII. FAILURE TO NOTIFY CAMPUS ADMINISTRATION: Failure to notify campus administration, as outlined in this procedure, of one's status as a RSO may lead to discipline up to and including removal from classes and/or suspension from participation in academic or extra-curricular programs, termination from employment as well as possible criminal penalty as outlined in Arizona state law.
- IX. CAMPUS AND COMMUNITY NOTIFICATION OF RSO STATUS: Pursuant to Arizona law, the MCCCCD shall make campus notifications of RSO status, as follows:
- a. For level two and level three offenders, the MCCCCD Public Safety Office, in conjunction with the Public Safety office at each college will coordinate with the local law enforcement agency responsible for the individual community notifications to ensure the sex offender notification is provided to the individual campus community.
 - b. The [Sex Offender Information and Notification](#) website will host the notification of RSO's employed by or attending a MCCCCD college, including employment with the District office.
 - c. For Colleges with facilities off-site from the main campuses that receive a registered sex offender community notification flyer from a local law enforcement agency, building managers are advised to post the flyer the building's common area easily accessed by students, staff, and faculty for a at least thirty (30) days. Specific information and instructions related to the community notification will be contained in the flyer and such instructions should be followed.
 - d. Any criminal activity involving a registered sex offender should be reported to police.
- X. ADMINISTRATIVE OVERSIGHT:
- a. Students: A campus administrator has the right to, at her or his discretion, require currently enrolled RSOs to attend regular meetings. The meetings will serve as a way to monitor compliance with conditions for enrollment and assist with student success. The frequency, duration, attendees to the meeting, and location of the meetings will vary based upon the needs of the RSO.
 - b. Employees: A supervisor, in conjunction with a Human Resources representative, at her or his discretion, may require currently employed RSOs to attend regular meetings. The meetings will serve as a way to

monitor compliance with conditions for employment and assist with student success. The frequency, duration, attendees to the meeting, and location of the meetings will vary based upon the needs of the RSO.

ADOPTED by Direct Approval from the Chancellor, March 6, 2019

2.4.12 Workplace Violence Prevention

Purpose

It is the policy of the Maricopa County Community College District to promote a safe environment for its employees, students, contractors, and visitors. MCCCDC is committed to working with its employees to maintain an environment free from violence, threats of violence, harassment, intimidation, and other disruptive behavior.

Policy

Violence, threats, harassment, intimidation, and other disruptive behavior in our facilities is prohibited and will not be tolerated. It is the responsibility of all employees, students, contractors, and visitors of MCCCDC to report any occurrence of such conduct to MCCCDC Public Safety. Every employee, student, contractor, and visitor on MCCCDC property should report threats or acts of physical violence and acts of harassment, intimidation, and other disruptive behavior of which he/she is aware. All reports will be taken seriously and will be investigated by public safety immediately in order to protect everyone from danger. Such behavior can include oral or written statements, gestures, or expressions that communicate a direct or indirect threat of physical harm.

Prohibited Behavior

For example, and without limiting the generality of the foregoing statement, this policy prohibits:

- direct threats or physical intimidation
- implications or suggestions of violence
- stalking
- assault of any form
- physical restraint, confinement
- dangerous or threatening horseplay
- loud, disruptive, or angry behavior or language that is clearly not part of the typical work environment
- blatant or intentional disregard for the safety or well-being of others
- commission of a violent felony or misdemeanor on MCCCDC property
- abuse
- violation of a protective order or restraining order
- any other act that a reasonable person would perceive as constituting a threat of violence

This list is illustrative only and not exhaustive.

Future Violence

Employees, students, and visitors who have reason to believe they, or others, may be victimized by a violent act or sometime in the future, at the workplace or as a direct result of their relationship with MCCCDC, shall inform a supervisor or manager as soon as possible. The supervisor or manager shall inform the Public Safety Department. Students, contractors, and visitors shall contact the Public Safety Department as soon as possible.

Employees who have signed and filed a restraining order, temporary or permanent, against an individual due to a potential act of violence, who would be in violation of the order by coming near them at work, shall immediately supply a copy to the Department Director, Human Resources, and Public Safety. Students shall supply a copy of the signed order to the Public Safety Department.

This policy applies to employees and students, as well as independent contractors and other non-employees doing business with the MCCCDC. Individuals who commit such acts may be removed from the premises and may be subject to

disciplinary action, criminal penalties, or both. The Chancellor is hereby instructed to enact all administrative regulations necessary to implement this policy.

2.4.13 Student Right to Know

Under the terms of the Student Right To Know Act, the college must maintain and report statistics on the number of students receiving athletically related student aid reported by race and sex, the graduation rate for athletes participating in specific sports reported by race and sex, the graduation rate for students in general, reported by race and sex and other similar statistics. To obtain copies of these reports, contact the Office of Admissions and Records.

STUDENT RIGHTS AND RESPONSIBILITIES

2.4.5 Copyright Act Compliance

Students are expected to comply with the provisions of the Copyright Act of 1976 pertaining to photocopying of printed materials, copying of computer software and videotaping. In order to assist students in complying with the Copyright Law, appropriate notices shall be placed on or near all equipment capable of duplicating copyrighted materials.

3.2 Copyright Regulation

1. It is the intent of the Governing Board of the Maricopa County Community College District to adhere to the provisions of the U.S. Copyright Law (Title 17, United States Code Section 101 et seq.). Though there continues to be controversy regarding interpretation of the Copyright Law, this policy represents a sincere effort by the Board to operate legally within the District.
2. The Governing Board directs the Chancellor or his designee(s) to develop and distribute to employees guidelines that (1) clearly discourage violation of the Copyright Law and (2) inform employees of their rights and responsibilities under the Copyright Law.
3. Each college president or provost and the Chancellor shall name an individual(s) at each district location who will assume the responsibilities of distributing copyright guidelines, act as a resource person regarding copyright matter and provide training programs on current copyright laws.
4. Employees are prohibited from copying materials not specifically allowed by the (1) copyright Law, (2) fair use guidelines, (3) Licenses or contractual agreements, or (4) other permission.
5. The Governing Board disapproves of unauthorized duplication in any form. Employees who willfully disregard this Board policy and/or the aforementioned copyright guidelines do so at their own risk and assume all liability for their actions.
6. In order to assist employees and students in complying with the Copyright Law, appropriate notices shall be placed on or near all equipment capable of duplicating copyrighted materials.

What Students Should Know About Copyright

What is copyright?

Copyright is a protection afforded under federal law for various types of creative works. A work is copyrightable if it is an original work of authorship fixed in a tangible medium of expression. Copyrightable works include literary, musical or dramatic works; motion pictures and other audiovisual works; choreographic works and pantomimes; sound recordings; and architectural works.

The owner of a copyright in a particular work has the exclusive right to copy, display, perform, distribute, and create a derivative version of the work. Generally, then, this means that you may not do things like duplicate, show or perform a copyrighted work unless it is expressly allowed under the Copyright Act or you have the prior permission of the copyright holder.

A copyright exists in a work at the time it becomes fixed in some tangible medium of expression. Neither registration of the copyright with the federal government nor a copyright notice on the work itself is required for copyright protection.

What is copyright infringement?

Generally, copyright infringement occurs when you copy, display, perform, distribute or create a derivative version of a copyrightable work either without the permission of the copyright holder or when such activity is not otherwise allowed under an exception provided by federal copyright law. The penalties for infringement include significant damages-potentially in excess of \$100,000 for each work infringed as well as criminal penalties, which may include fines and even incarceration.

How does copyright law affect information I obtain off the Internet?

Copyright law covers works in both traditional and new media, including digital media. Copyrightable materials are often available on the Internet without any indication of their copyrighted status. As a rule of thumb, you should assume that everything you find on the Internet is copyrighted, unless otherwise labeled. Even popular activities, such as file swapping or copying software or pictures from the Internet, may be copyright infringement and should be avoided.

The Digital Millennium Copyright Act, which Congress enacted in 2000, affords greater protection for copyright holders of digital works. Generally, then, even if a work appears solely in a digital form, it is likely subject to copyright law protections.

New technology has made many creative works widely available through the Internet. For example, the technology known as Peer to Peer (P2P) allows for the transmission of music, videos, movies, software, video games and other materials-most of which is subject to copyright protection.

Remember that a copyright exists in a work at the time it becomes fixed in some tangible medium of expression. That means that an image you have downloaded from the Internet, as well as a video or musical performance is almost certainly subject to copyright protection. When you download these works, transfer them to a disk or other medium, or send them to a friend, you are infringing on the rights of the copyright holder. Trafficking in such material without the permission of the copyright holder, then, violates copyright law. This includes unauthorized music file sharing over the Internet.

According to a statement recently issued by representatives of the motion picture, recording and songwriting industries, uploading and downloading copyrighted works over the Internet is theft: "It is no different from walking into the campus bookstore and in a clandestine manner walking out with a textbook without paying for it."

Why is it important for a student to be aware of copyright law?

Copyright infringement is expressly prohibited by the US Copyright Act. Anyone who infringes another's copyright in a creative work is subject to liability, and could be required to pay large sums in damages.

In addition, as the law clearly prohibits copyright infringement, using any college resources-such as photocopiers, desktop and laptop computers, printers, central computing facilities, local-area or college-wide networks, Internet access, or electronic mail-for the purpose of infringing a copyright in any work may be grounds for student discipline. According to Maricopa Community College District administrative regulation, "students are expected to comply with the provisions of the Copyright Act of 1976 pertaining to photocopying of printed materials, copying of computer software and videotaping."

Moreover, under the Maricopa Community Colleges Computing Resource Standards, a student is prohibited from the "use of software, graphics, photographs, or any other tangible form of expression that would violate or infringe any copyright or similar legally-recognized protection of intellectual property rights." The Standards also prohibit "transmitting, storing, or receiving data, or otherwise using computing resources in a manner that would constitute a violation of state or federal law"

A student who violates these policies, then, can be disciplined at any of the Maricopa Community Colleges. This discipline could include suspension or even expulsion.

Does copyright law allow me to download files from a college web site?

Thanks to recent changes to copyright law, colleges and universities are allowed to transmit copyrighted images, recordings, and other materials over the Internet in connection with distance learning offerings. These changes allow for the performance of non-dramatic literary works or musical works, as well as the display of "reasonable and limited portions" of any work in an amount comparable to that typically displayed in a live classroom setting. Use of the works must, however, be "an integral part" of the distance-learning class session, and available solely to students enrolled in the class. In addition, the transmission of the copyrighted works must be under the direction or actual supervision of an instructor.

Even though the college does not hold the copyright to these works, or even have the express permission of the copyright holder, they may be delivered over the Internet to students in distance learning classes.

The fact that the law authorizes such use of copyrighted materials, though, does not allow a student in these classes to freely download, copy, or re-transmit the works. They are intended solely for use by the institution in connection with distance instruction; any other use would likely constitute a violation of copyright law.

3.4 Recording of Faculty Lectures

1. MCCCDC acknowledges that faculty members are, by law, afforded copyright protection in their classroom lectures and, therefore, may limit the circumstances under which students may record (audio/visual) their classes.
2. Each faculty member shall inform their students in the course syllabus or other course introductory material of their policy with regard to recording of class lectures. Failure to do so will accord students the right to record lectures. A lecture is defined as anything upon which a student is tested or that is part of the curriculum or course content whether in person, virtual, or pre-recorded. A restriction on recording does not apply if the recording is allowed under another policy.
 - a. Students, regardless of whether they have permission or not from the faculty member to record class lectures, may not reproduce or otherwise share and/or distribute all or part of recorded class lectures and/or activities taking place during class time, without the written consent of the faculty member. (Reproducing includes, but is not limited to, posting any pre-recorded or real time recording of a class lecture—in whole or in part—to any social media platform (TikTok, Twitter, Facebook, Instagram, YouTube, etc.)).
 - b. Any violation of AR 3.4 (2)(a) may constitute "academic misconduct" prohibited by AR 2.3.11 Academic Misconduct.
3. Students with disabilities that render them unable to take adequate lecture notes are entitled to reasonable accommodation – subject to engagement in the interactive process and a determination of functional limitation as outlined in AR 2.8 Students with Disabilities – to remedy this inability. Approved accommodation may require a faculty member to modify their recording policy for the affected student.

In accordance with Subpart E of Section 504 of the Rehabilitation Act of 1973, a student with a qualifying disability which adversely affects the student's ability to take or read notes may be permitted to audio record class lectures as a reasonable academic accommodation.

In an effort to address faculty concerns for privacy and protection of copyright while still assuring the availability of recording classroom lectures as a reasonable accommodation for students, use of this accommodation is subject to the following conditions:

- a. The faculty member must have received the Disability Resource Services (DRS) Faculty Notification Letter specifying the recording of classroom lectures as a granted reasonable accommodation.
- b. Such recordings of class lectures are only for the student's personal use in study and preparation related to class.

- c. The student must comply with a faculty request to stop recording during discussions, demonstrations, presentations, guest speakers, and situations of a sensitive nature. The faculty member should provide as much notice of these situations as possible in order for the student to coordinate with the faculty member and DRS to have notes taken on the substantive parts of the lecture.
- d. The student may not share classroom lecture, or any other recordings made during class time with any other person or in any media or on a public or private platform without the written consent of the faculty member.
- e. Information contained in the authorized audio recorded lectures, and any other recordings whether authorized or unauthorized, may be protected under federal copyright laws and may not be published or quoted without the written consent of the faculty and without giving proper identity and credit to speakers, this includes publication via any social media platform, emails, or text messages.
- f. The student may not use the authorized recorded lectures, and any other recordings whether authorized or unauthorized, against the faculty member, other instructors, or students whose classroom comments are recorded as part of the class activity. This provision is subject to the protections under policy and the law.
- g. The student will erase all recorded class lectures when they are no longer needed for academic work. Upon written request from the faculty member, the student will return all class recordings to the faculty member for erasure. Faculty members should provide DRS with a copy of the aforementioned written request. Likewise, students are not permitted to post the lectures on any social media platform, website, or learning management system without the instructor's written consent except for communications to the instructor of record.
- h. Students who wish to keep recordings beyond the end of the course for future review must obtain written permission from the faculty member.
- i. Audio, or any other recordings outside of the aforementioned lectures (including fieldwork, internships, etc.) may be discussed on a case-by-case basis in collaboration with the faculty member, program of study, site manager, and DRS. In clinical/experiential learning placements, the recording of any discussions, lectures, or conversations are never permitted.
- j. Students, regardless of whether they have permission or not from the faculty member to record class lectures or any other part of the classroom/class time experience, may not post all or part of recorded class lectures or any other recordings made during class time to any social media platform (TikTok, Twitter, Facebook, Instagram, YouTube, etc.), or otherwise reproduce, share and/or distribute to any other person or party.
- k. Any violation of AR 3.4(3) may constitute "academic misconduct" prohibited under AR 2.3.11 Academic Misconduct.

AMENDED through the Administrative Regulations Approval Process, April 20, 2021

4.4 Technology Resource Standards

Introduction

The Maricopa County Community College District (MCCCD) provides its students, employees, Governing Board members and the public with access to information resources and technologies. MCCCD recognizes that the free exchange of opinions and ideas is essential to academic freedom, and the advancement of educational, research, service, operational, and management purposes, is furthered by making these resources accessible.

Arizona constitutional and statutory mandates require that MCCCDCD resources, including technology, be used only for the public's business, and not for private purposes. Those mandates apply to all MCCCDCD public officials—employees of every kind and the Governing Board. The aim of those laws is to safeguard the use of resources, including technology resources, acquired and maintained with public funds. Compliance with other laws—both federal and state—also dictates the need for standards for the use of MCCCDCD technology resources. In some cases, the Governing Board policies emphasize the importance of compliance with the law such as the requirement to adhere to copyright laws. Governing Board policies also establish MCCCDCD's own standards, such as the directive that all persons within the MCCCDCD community be treated in a manner that is humane, fair and dignified.

This administrative regulations established standards for the use of MCCCDCD technology resources. They should be seen as supplementing, and not in lieu of, Governing Board policy, applicable law and other applicable administrative regulations such as Administrative Regulation 4.3 "Electronic Communications."

General Responsibilities

Technology resources (including, but not limited to, desktop and laptop systems, printers, central computing facilities, MCCCDCD-wide or college-wide networks, local-area networks, telephones, facsimile machines, scanners, access to the Internet, electronic mail and similar electronic devices and information) of the MCCCDCD are available to MCCCDCD Governing Board members, employees, students and, in a limited number of cases, MCCCDCD contractors and the public. Use of all those resources is subject to the standards set forth in this regulation (Standards).

The first screen that each MCCCDCD computer exhibits on starting up advises users of these Standards and requires an acknowledgment before the user may proceed to the next screen. Additionally, all MCCCDCD employees are responsible for annually acknowledging receipt of the Blue Book, which contains this regulation. So all users of MCCCDCD technology resources are presumed to have read and understood the Standards. While the Standards govern use of technology resources MCCCDCD-wide, an individual community college or center may establish guidelines for technology resource usage that supplement, but do not replace or waive, these Standards.

Use of Non-MCCCDCD Technology

Under Arizona's public records law, MCCCDCD is required to transact business so that its records are accessible and retrievable. The policy underlying the law is that work done in the name of the public be transparent. Thus, any member of the public may request public records and, except in a few specific instances, are entitled to get copies of them.

Each individual employee or Governing Board member is responsible for ensuring that MCCCDCD records that he or she initiates or receives are retained for the period of time required by and disposed of according to mandates established by Arizona State Library, Archives and Public Records—the state agency tasked with setting standards for record retention. Therefore, an employee's or Governing Board member's use of non-MCCCDCD technology resources for communication of any type of MCCCDCD business is heavily discouraged because those records are less capable of being managed according to MCCCDCD's process for ensuring retention, retrieval and disclosure set forth in Administrative Regulation 4.15 "Retrieval, Disclosure and Retention of Records."

Additionally, an MCCCDCD employee who receives a communication allegedly from another MCCCDCD employee using a non-MCCCDCD e-mail address is not required to respond substantively to that e-mail. The employee receiving the e-mail is entitled to verify that the sender is whom he or she says that he or she is. The employee receiving the e-mail may request that the sender provide the information or inquiry set forth in the e-mail via hard-copy form.

Acceptable Use

Use of MCCCDCD's technology resources, including websites created by MCCCDCD employees and students, is limited to educational, research, service, operational and management purposes of the MCCCDCD and its member institutions. Likewise, data, voice, images and links to external sites posted on or transmitted via MCCCDCD's technology resources are limited to the same purposes.

Frequently, access to MCCC'D's technology resources can be obtained only through use of a password known exclusively to the MCCC'D employees, Governing Board members or students. It is those users' responsibility to keep a password confidential. While MCCC'D takes reasonable measures to ensure network security, it cannot be held accountable for unauthorized access to its technology resources by other persons, both within and outside the MCCC'D community. Moreover, it cannot guarantee employees, Governing Board members and students protection against reasonable failures. Finally, under certain limited circumstances defined in Administrative Regulation 4.15 "Retrieval, Disclosure and Retention of Records," certain MCCC'D employees are authorized to access information on an MCCC'D technology device.

It is not Maricopa's practice to monitor the content of electronic mail transmissions, files, images, links or other data stored on or transmitted through Maricopa's technology resources. The maintenance, operation and security of Maricopa's technology resources, however, require that network administrators and other authorized personnel have access to those resources and, on occasion, review the content of data and communications stored on or transmitted through those resources. Any other review may be performed exclusively by persons expressly authorized for such purpose and only for cause. To the extent possible in the electronic environment and in a public setting, a user's privacy will be honored. Nevertheless, that privacy is subject to Arizona's public records laws and other applicable state and federal laws, as well as policies of Maricopa's Governing Board all of which may supersede a user's interests in maintaining privacy in information contained in Maricopa's technology resources.

Incidental Computer and Technology Usage

Limited incidental personal use of MCCC'D technology resources including through use of personal e-mail systems is permitted, except as described in item 16 under "Prohibited Conduct." MCCC'D employees are responsible for exercising good judgment about personal use in accordance with this regulation, Colleges' consistent local guidelines and MCCC'D ethical standards. Personal use refers to activities which only affect the individual and that are not related to an employee's outside business. MCCC'D employees are required to conduct themselves in a manner which will not raise concern that they are or might be engaged in acts in violations of the public trust. Refer to the Guidelines for Incidental Computer Usage for the Maricopa Community Colleges ([Appendix AS-8](#)) and Guidelines for Incidental Telephone Usage for the Maricopa Community Colleges ([Appendix AS-9](#)).

Prohibited Conduct

The following is prohibited conduct in the use of MCCC'D's technology resources

1. Posting to the network, downloading or transporting any material that would constitute a violation of MCCC'D contracts.
2. Unauthorized attempts to monitor another user's password protected data or electronic communication, or delete another user's password protected data, electronic communications or software, without that person's permission.
3. Installing or running on any system a program that is intended to or is likely to result in eventual damage to a file or computer system.
4. Performing acts that would unfairly monopolize technology resources to the exclusion of other users, including (but not limited to) unauthorized installation of server system software.
5. Hosting an unauthorized website that violates the .EDU domain request.
6. Use of technology resources for non-MCCC'D commercial purposes, including to advertise personal services, whether or not for financial gain.
7. Use of software, graphics, photographs, or any other tangible form of expression that would violate or infringe any copyright or similar legally-recognized protection of intellectual property rights.
8. Activities that would constitute a violation of any policy of MCCC'D's Governing Board, including, but not limited to, MCCC'D's non-discrimination policy and its policy against sexual harassment.
9. Transmitting, storing, or receiving data, or otherwise using technology resources in a manner that would constitute a violation of state or federal law, or MCCC'D policy or administrative regulation including, but not limited to, obscenity, defamation, threats, harassment, and theft.
10. Attempting to gain unauthorized access to a remote network or remote computer system.
11. Exploiting any technology resources by attempting to prevent or circumvent access, or using unauthorized data protection schemes.

12. Performing any act that would disrupt normal operations of computers, workstations, terminals, peripherals, or networks.
13. Using technology resources in such a way as to wrongfully hide the identity of the user or pose as another person.
14. Allowing any unauthorized access to MCCCDC's technology and non-technology resources.
15. Making personal long distance or other toll calls, except where the charges for the calls are incurred directly by the caller or arrangements are otherwise made at the time of the call to directly bill the caller.
16. Intermittent use of technology resources that interferes with the performance of an employee's main responsibilities.
17. Use of technology resources to market or conduct other activities on behalf of a third-party regarding the "hosting" of an event that is prohibited under MCCCDC's Use of College Facilities administrative regulation.
18. Conducting District or college-related business using any electronic mail account other than one hosted or provided by MCCCDC, and approved by the Vice Chancellor of Information Technology Services, even when the e-mail account copies all outgoing and incoming messages to the MCCCDC hosted account.
19. Deleting or altering a technology public record in violation of public records retention requirements, or in anticipation of receiving or after receipt of a public records request, subpoena or a complaint filed as part of an MCCCDC grievance, investigation or review, or other lawful request for the record.
20. Deleting or altering a technology record on an MCCCDC device in anticipation or after receipt of a public records request, subpoena or a complaint filed as part of an MCCCDC grievance, investigation or review, or other lawful request for the records where the record may demonstrate a misuse of technology resources under this regulation.

Review and Approval of Alternate E-Mail Account Systems

The prior review and approval by the Vice Chancellor of Information Technology is required for the implementation of alternate College electronic mail account systems. Requests will be evaluated based upon the following considerations:

1. The system must be compatible and interoperable with the MCCCDC e-mail system. All information within the e-mail system must meet the standards and authorize District Office access as specified in Administrative Regulation 4.15, "Retrieval, Disclosure and Retention of Records."
2. Any proposed changes to an MCCCDC's entity's e-mail system with e-discovery implications must be approved in advance during the planning stages as specified in Administrative Regulation 4.15, "Retrieval, Disclosure and Retention of Records."

Disclaimer

The home page of an MCCCDC web site must display, or link to, the following disclaimer in a conspicuous manner:

All information published online by MCCCDC is subject to change without notice. MCCCDC is not responsible for errors or damages of any kind resulting from access to its internet resources or use of the information contained therein. Every effort has been made to ensure the accuracy of information presented as factual; however errors may exist. Users are directed to countercheck facts when considering their use in other applications. MCCCDC is not responsible for the content or functionality of any technology resource not owned by the institution.

The statements, comments, or opinions expressed by users through use of Maricopa's technology resources are those of their respective authors, who are solely responsible for them, and do not necessarily represent the views of the Maricopa County Community College District.

Information Accuracy and Marketing Standards

In order to help ensure that the most accurate information sources are reflected on web pages, information should be cited, sourced or linked from the website of the official District or college custodian responsible for the particular subject. In addition, the design of web pages shall reflect established marketing standards with respect to the imaging and using of MCCCDC marks as outlined in the marketing standards handbook and Use of Marks administrative regulation.

Complaints and Violations

Complaints or allegations of a violation of these standards will be processed through Maricopa's articulated grievance procedures or resolution of controversy.

Upon determination of a violation of these standards, MCCCDC may unilaterally delete any violative content and terminate the user's access to MCCCDC's technology resources. It is the user's responsibility to demonstrate and/or establish the relevance of content in the event that a content complaint is made official. Users retain the right to appeal actions through MCCCDC's grievance procedures or resolution of controversy.

2.6 Hazing Prevention Regulation

The Maricopa County Community College District (MCCCDC) strives to exceed the changing expectations of our many communities for effective, innovative, student-centered, flexible and lifelong educational opportunities. Our employees are committed to respecting diversity, continuous quality improvement and the efficient use of resources. We are a learning organization guided by our shared values of: education, students, employees, excellence, diversity, honesty and integrity, freedom, fairness, responsibility and public trust.

Central to the vitality and dignity of our community of learners is an environment that produces broadly educated responsible citizens, who are prepared to serve and lead in a free society. Academic instruction, co-curricular activities and community involvement come together to meet this goal. All members of the MCCCDC community, through the best of their abilities, must be provided the opportunity to contribute in a safe, orderly, civil and positive learning environment. One factor that inhibits the achievement of the above stated purpose is the practice of hazing.

1. Hazing by any student, employee or other person affiliated with MCCCDC is prohibited.
2. "Hazing" is defined as any intentional, knowing or reckless act committed by a student or other person in any MCCCDC college or affiliated educational setting, whether individually or in concert with other persons, against another student, and in which both of the following apply:
 - A. The act was committed in connection with an initiation into, an affiliation with or the maintenance of membership in any club/organization that is affiliated with MCCCDC; and
 - B. The act contributes to a substantial risk of potential physical injury, mental harm or personal degradation, or causes physical injury, mental harm or personal degradation.
3. Any solicitation to engage in hazing is prohibited.
4. Aiding and abetting another person who is engaged in hazing is prohibited.
5. Victim consent is not a defense for violation of the Maricopa Community Colleges Hazing Prevention Regulation.
6. All students, faculty and staff must take reasonable measures within the scope of their individual authority to prevent violations of the MCCCDC Hazing Prevention Regulation.
7. Hazing activities and situations include, but are not limited to, the following:
 - A. Pre-pledging, illegal pledging or underground activities.
 - B. Acts of mental and physical abuse, including, but not limited to: paddling, slapping, kicking, pushing, yelling, biting, duck-walking, line-ups, tuck-ins, belittling, excessive exercise, beating or physical abuse of any kind, and the potentially forced consumption of any food or beverage that contributes to or causes physical injury, mental harm or personal degradation.
 - C. Sleep deprivation (activities that deprive prospective and/or current students and/or members of the opportunity of a minimum of six hours sufficient sleep each day).
 - D. Encouraging or forcing use of alcohol or drugs.
 - E. Any type of student club/organization scavenger hunt, quest, road trip or other activity that would physically or psychologically endanger prospective and/or current students and/or members or others.
 - F. Stroking or physically touching in an indecent or inappropriate manner. See Sexual Harassment Policy 5.1.8
 - G. Student club/organization activities that subject prospective and/or current students and/or members or others to public nuisance or spectacle.
 - H. Aiding or abetting theft, fraud, embezzlement of funds, destruction of public, personal or private property, or academic misconduct.
 - I. Being required to wear odd or look-alike apparel that contributes to or causes physical injury, mental harm or personal degradation.
 - J. Personal services that contribute to or cause physical injury, mental harm or personal degradation.

8. Alleged violations of this regulation by students or student organizations can be reported to the vice president of student affairs' office for investigation by any member of the college community. The vice president of student affairs' office will investigate the complaint in accordance with the student disciplinary code, all other college and MCCCDC policies, and local and state laws.

Alleged violations of the MCCCDC hazing prevention regulation or interference with an investigation under this regulation by students or student organizations are subject to sanctions under the student disciplinary code.

The student disciplinary code shall govern all proceedings involving such a complaint. Decisions arrived at as outcomes of the proceedings shall be final, pending the normal appeal process.

9. Alleged violations of the MCCCDC hazing prevention regulation by any faculty or staff member can be reported to the vice president of student affairs' office for investigation by any member of the college community. The vice president of student affairs' office will investigate the complaint in accordance with college and MCCCDC policies, and local and state laws.

Any MCCCDC faculty or staff member who knowingly permitted, authorized or condoned the alleged hazing activity is subject to disciplinary action in accordance with college and MCCCDC policies, and local and state laws.

10. If the vice president of student affairs' office receives a report or complaint of an alleged hazing activity involving physical injury, threats of physical injury, intimidation, harassment or property damage, or any other conduct that appears to violate Arizona state law, the college will report such conduct to the appropriate college safety office. The said college safety office will investigate, respond to and report on the alleged hazing activity in accordance with all college, district, local, state and federal guidelines, policies and laws.
11. Should the proceedings outlined above substantiate an occurrence of hazing activity-where students or student organizations knowingly permitted, authorized or condoned the hazing activity-the college can recommend the following sanctions against student clubs/organizations:
 - A. CENSURE: Censure can include the required completion of a program designed with the intent of eliminating the hazing activity. The programs will be devised with the cooperation of all involved parties and monitored by the vice president of student affairs' office.
 - B. PROBATION: The student club(s)/organization(s) will be placed on probation for a specified period of time. Conditions of probation will be determined by the vice president of student affairs' office and outlined in writing to the student club(s)/organization(s). The probationary term will be monitored by the vice president of student affairs.
 - C. SUSPENSION: The student club(s)/organization(s) will be suspended. The terms of the suspension can be defined in the sanction, including criteria the student club(s)/organization(s) must meet within a specified time to be considered for admission or renewal of college recognition status.
 - D. REVOCATION: The student club(s)/organization(s) will have its status revoked, with the loss of all college associations, recognitions and privileges. The national or international office of an organization, if so affiliated, will be requested to revoke the charter of an organization.
12. The MCCCDC hazing prevention regulation is not intended to prohibit or sanction the following conduct:
 - A. Customary athletic events, contests or competitions that are sponsored by the college or MCCCDC.
 - B. Any activity or conduct that furthers the goals of a legitimate educational curriculum, a legitimate co-curricular experience or a legitimate military training program.
13. For the purposes of the MCCCDC hazing prevention regulation:

"Organization" is defined as an athletic team, association, order, society, corps, cooperative, club or other similar group that is affiliated with MCCCDC, whose membership consists primarily of students enrolled at MCCCDC and that may also be classroom-related or co-curricular in nature.

2.4.7 Abuse-Free Environment

See also the Auxiliary Services section for Tobacco-Free Environment and the Appendices/Student Section Medical Marijuana Act of the Administrative Regulations.

1. Substance Abuse/Misuse Statement

Drug abuse and misuse has become a national issue and is receiving national attention, particularly in the academic community. The insidious effects of the abuse of these agents are also felt by all walks of life and economic levels. Therefore, as an education providing institution, we are responsible to provide knowledge and guidelines about prevention, control, and treatment of the abuse/misuse of alcohol, illegal and legal drug uses and misuses. Annual Acknowledgements for students and employees are provided through the online messaging accounts.

Students who experiment with drugs, alcohol, and illegal substances or use them recreationally may develop a pattern of use that leads to abuse and addiction. Maricopa Community Colleges recognized drug and alcohol abuse as an illness and a major health problem as well as a potential safety and security issue.

Part of the educational mission of the Maricopa Community Colleges is to educate students about positive self-development, the benefits of a healthy lifestyle and the health risks associated with substance abuse. This mission closely aligns with the Drug-Free School and Communities Act of 1989, and other relevant substance abuse laws.

2. Student Program to Prevent Illicit Use of Drugs and Abuse of Alcohol

The Maricopa Community College District fully supports disciplinary action for misconduct and the enforcement of state laws governing the use of alcohol and the use, abuse, possession or distribution of controlled substances or illegal drugs.

A. Introduction and Purpose

The Federal Drug-Free Schools and Communities Act of 1989 (Public Law 101-226) requires federal contractors and grantees to certify that they will provide a drug-free school. As a recipient of federal grants, the District must adopt a program toward accomplishing this goal. While federal legislation has been the impetus for creation of the program, the administration and Governing Board recognize that substance abuse is a problem of national proportions that also affect students at the Maricopa Community Colleges.

The Maricopa Community Colleges are committed to maintaining learning environments that enhance the full benefits of a student's educational experience. The Maricopa County Community College District will make every effort to provide students with optimal conditions for learning that are free of the problems associated with the unauthorized use and abuse of alcohol and drugs.

B. Standards of Conduct

In the student handbooks of the Maricopa Community Colleges under codes of conduct, the following are examples of behavior that is prohibited by law and/or college rules and policies:

- i. Drinking or possession of alcoholic beverages on the college campus.
- ii. Misuse of narcotics or drugs.

C. Sanctions for Violation of Standards of Conduct

Disciplinary actions include, but are not limited to:

- i. Warning,
- ii. Loss of privileges,
- iii. Suspension, or
- iv. Expulsion.

D. Legal Sanctions

Local, state, and federal law prohibit the unlawful possession, use or distribution of illicit drugs and alcohol. Conviction for violating these laws can lead to imprisonment, fines, probation, and/or assigned community service. Persons convicted of a drug-and/or alcohol related offense will be ineligible to receive federally funded or subsidized grants, loans, scholarships, or employment.

Any employee is subject to disciplinary action, up to and including employment termination, for any of the following: reporting to work under the influence of alcohol and/or illegal drugs or narcotics; the use, sale, dispensing, or possession of alcohol and/or illegal drugs or narcotics on MCCCDCD premises, while conducting MCCCDCD business, or at any time which would interfere with the effective conduct of the employee's work for the MCCCDCD; and use of illegal drugs.

3. MCCCCD Program Standards

The Maricopa Community College District is committed to establishing a preventative substance abuse program at each college designed to affect positively the problems of irresponsible use of alcohol and the use and abuse of illegal substances. A main focus of the program will be on education of the campus community and assistance to individuals.

- A. Identify a key individual, at each college, to provide emergency services and/or to contact and work with outside agencies that provide drug and alcohol counseling, treatment or rehabilitation programs that may be available to students and employees.
- B. Support disciplinary action for misconduct and the enforcement of state laws governing the use of alcohol and the use, abuse, possession or distribution of controlled substances or illegal drugs.
- C. Establish a preventative substance abuse program at each college designed to affect positively the problems of irresponsible use of alcohol and the use and abuse of illegal substances.

4. Alcoholic Beverages—Usage Regulation (AR 4.13)

This Administrative Regulation prohibits the use of District funds to purchase alcoholic beverages or services related to them except in small amounts to be used in cooking for the District's culinary programs. Additionally, it generally prohibits the presence of alcoholic beverages on premises owned by the District, or those leased or rented by the institution. It permits a few, narrow exceptions to that latter prohibition. The exceptions are not available to the general population of District employees or officials. More importantly, they are established to ensure that the District's actions stay within the boundaries of state law and the District's insurance coverage. Therefore, strict compliance with this regulation is essential.

- A. **No Funds.** No funds under the jurisdiction of the governing board of the District may be used to purchase alcoholic beverages, except for the limited purposes of purchasing small amounts of them for use solely as ingredients in food preparation for classes and at the District's culinary institutes. Alcoholic beverages may not be stored on premises owned, leased, or rented by MCCCCD except as provided in Paragraph H.
- B. **No Service or Sale of Alcoholic Beverages.** The law of the state of Arizona strictly regulates the service, sale, distribution and consumption of alcoholic beverages. In light of that law, the District does not permit alcoholic beverages to be served, sold or distributed on or in the premises owned by the District or leased or rented by the Maricopa Community Colleges for District-approved educational, fund-raising or other community purposes, except as provided in Paragraphs C and G.
- C. **Service at District Events on District-owned Property.** The Chancellor has the sole authority to approve the service, but not the sale or other distribution, of wine or beer at District events on district-owned property that the Chancellor either sponsors or approves. The only District employees authorized to request the Chancellor's approval are the College Presidents and the Vice Chancellors. Additionally, the law strictly limits the service of wine or beer by the District on District-owned property, and those restrictions are specified in Paragraph E. Unless approved by the Chancellor in compliance with the law and this regulation, alcoholic beverages may not be served on District-owned property.
- D. **Event Form Required.** A College President or Vice Chancellor who wishes to obtain the Chancellor's approval for the service of wine or beer at a District-sponsored event on District-owned property shall forward a completed written request to the Chancellor no later than 30 days before the event. The request form is available at: [AS-6 Notice of Intent to Serve Beer and Wine Form](#). On signing the form, the Chancellor will provide a copy of it to the requestor and to the MCCCCD Risk Manager. For events that the Chancellor sponsors, he or she will complete the form, sign it and provide it to the MCCCCD Risk Manager no later than 10 business days before the event.
- E. **Service restrictions required by law.** An event approved under Paragraph D must, by law, comply with the all of the following restrictions:
 - i. The only alcoholic beverages that may be served and consumed are wine and beer. Wine consumption is limited to 6 oz. per person, and beer consumption is limited to 24 oz;
 - ii. The gathering must be by invitation only, and not open to the public;
 - iii. The gathering may not exceed 300;
 - iv. Invitees may not be charged any fee for either the event or the beer or wine; and

- v. The consumption may only take place between noon and 10:00 p.m.

Additionally, beer and wine may only be served by a beverage service contractor whose liquor license with the state of Arizona is in good standing, except as provided in Paragraph F. The contractor must provide all of the beverages served and well as the servers or bartender. Before the event, the contractor must provide a certificate of insurance that meets the requirements of the District's Risk Manager and that adds the District as an additional insured. The contractor must also agree in writing to indemnify the District regarding the service of the beverages.

- F. **Culinary Institutes.** The Chancellor may sponsor or approve an event at one of the District's culinary institutes. Students may serve wine and beer at the event as part of their class requirements, subject to the limitations of Paragraph E. Any student serving those beverages must, by law, be 19 years or older.
- G. **Third-Party Event.** The Maricopa County Community College District Foundation and the Friends of Public Radio Arizona may, with the approval of the Chancellor, sponsor an event on District-owned property under this regulation. The City of Phoenix and the Friends of the Phoenix Public Library may also do so, with the approval of the Chancellor, at the joint library on the campus of South Mountain Community College. These third-party, non-district entities are solely responsible for determining the steps that they are required to take to comply with Arizona's alcoholic beverages laws. Additionally, they must comply with the following steps:
 - i. The entity obtains a liquor license, if required by law, from the Arizona Department of Liquor Licenses and control for each event and fully complies with the laws, rules and other requirements applicable to that license;
 - ii. The entity completes the form available at [AS-7 Request to Serve Beer and Wine — Third Party Form](#). And provides it to the Chancellor for approval along with a copy of the liquor license no later than 30 days before the event, unless the Chancellor approves a shorter period of time in a particular case;
 - iii. The entity provides or currently has on file with the District a certificate of insurance demonstrating that it has liquor liability coverage and that adds the District as an additional insured;
 - iv. The entity agrees in writing to indemnify the District from any claims of any kind arising out of the event;
 - v. Beer and wine are the only alcoholic beverages served and only served through a beverage service contractor whose liquor license with the state of Arizona is in good standing;
 - vi. The contractor provides all of the beverages served and well as the servers or bartenders;
 - vii. Before the event, the contractor provides a certificate of insurance that meets the requirements of the District's Risk Manager and that adds the District as an additional insured; and
 - viii. The contractor agrees in writing to indemnify the District regarding the service of the beverages.
- H. **Receipt of beverages; storage.** It is not permissible to store wine or beer on premises owned, leased or rented by MCCCDC, except as provided in this paragraph. Alcoholic beverages purchased for use in cooking in District culinary courses must be stored in such a way that it is inaccessible to anyone except the Director or designee of the culinary program. For wine and beer to be used for receptions at the district's culinary institutes, as authorized by this administrative regulation, the following storage requirements apply:
 - i. Wine and beer to be served may only be brought to MCCCDC property no sooner than four hours prior to the event, and remain there no longer than four hours after the event; and
 - ii. Once the wine and beer arrives on MCCCDC property, the Director the culinary program shall assign an MCCCDC employee to ensure that it is not stolen or that it is not opened until ready to be served.
- I. **Compliance with law.** In compliance with applicable law, any persons planning an event under this administrative regulation are required to familiarize themselves with the pertinent laws and other requirements established by the state of Arizona for the service of alcoholic beverages, particularly those in Arizona Revised Statutes Title 4 (Alcoholic Beverages) Chapters 1 (General Provisions), 2 (Regulations and Prohibitions) and 3 (Civil Liability of Licensees and Other Persons) as well as Arizona Administrative Code Title 19, Articles 1 (State Liquor Board) and 3 (Unlicensed Premises Definitions and Licensing Time-Frames).
- J. **Residential Housing.** Lawful occupants of residential housing under the jurisdiction of the Governing Board, if over the age of 21 years and not otherwise lawfully barred from such practice, may possess and consume alcoholic beverages in the privacy of their respective leased housing facility. Guests of such occupants over the age of 21 years shall have the same privilege. No alcohol is permitted in public areas (nor common areas of a dormitory) at any time.

- K. **Personal Responsibility.** The personal or individual purchase of alcoholic beverages by individuals attending District-approved functions held in places serving alcoholic beverages is a personal and individual responsibility. Administrative discretion shall be exercised in the approval of the location of such activities, as such decision pertains to the nature of the group involved.
- L. **Miscellaneous Usage Issues.** Any issues that are not specifically addressed within this regulation require the review and determination by the Chancellor or Executive Vice Chancellor and Provost on matters related to culinary programs, academic or student affairs.

5. Other Health Concerns

General Guidelines Concerning AIDS

Neither a diagnosis of AIDS nor a positive HIV antibody test will be part of the initial admission decision for those applying to attend any of the Maricopa Community Colleges. The Maricopa Community Colleges will not require screening of students for antibody to HIV.

Students with AIDS or a positive HIV antibody test will not be restricted from access to student unions, theaters, cafeterias, snack bars, gymnasiums, swimming pools, recreational facilities, restrooms, or other common areas, as there is not current medical justification for doing so.

Where academically and logistically feasible, students who have medical conditions, including AIDS, may seek accommodation in order to remain enrolled. Medical documentation will be needed to support requests for accommodation through the Office of Disabled Resources and Services or the Office of Vice President of Student Affairs.

The Maricopa Community Colleges acknowledge the importance of privacy considerations with regard to persons with AIDS. The number of people who are aware of the existence and/or identity of students who have AIDS or a positive HIV antibody test should be kept to a minimum. When a student confides in an faculty member, knowledge of the condition should be transmitted to the appropriate vice president or designee who will make the determination if the information should be further disseminated. It should be remembered that mere exposure to the person in a classroom does not constitute a need to know the diagnosis. It is, therefore, unnecessary to document in a student's file the fact that he or she has AIDS unless the information is to be used for accommodation reasons. Sharing confidential information without consent may create legal liability.

Students are encouraged to contact the Office of Disabled Resources and Services and/or the vice president of student affairs or designee for the types of services available in the district or community on matters regarding AIDS or the HIV virus.

4.12 Smoke-Free/Tobacco-Free Environment

The Maricopa County Community College District is dedicated to providing a healthy, comfortable, and educationally productive environment for students, employees, and visitors. In order to promote a healthy learning and work environment, the Chancellor has directed that the Maricopa County Community College District serve as a total smoke free and tobacco free environment, effective July 1, 2012. Smoking (including the use of "e-cigs") and all uses of tobacco shall be prohibited from all District owned and leased property and facilities, including but not limited to parking lots, rooftops, courtyards, plazas, entrance and exit ways, vehicles, sidewalks, common areas, grounds, athletic facilities, and libraries.

Support signage prohibiting the use of smoking instruments and tobacco shall be placed throughout all college and District locations.

Continued violations by an employee or student shall be handled through the respective conduct procedures established for employees and students.

Appendix S-16: Statement on the Arizona Medical Marijuana Act (Proposition 203)

In 2010, Arizona voters approved the Arizona Medical Marijuana Act (Propositions 203), a state law permitting individuals to possess and use limited quantities of marijuana for medical purposes. Because of its obligations under federal law, however, the Maricopa Community Colleges will continue to prohibit marijuana possession and use on campus for any purpose.

Under the Drug Free Workplace Act of 1988, and the Drug Free Schools and Communities Act of 1989, "...no institution of higher education shall be eligible to receive funds or any other form of financial assistance under any federal program, including participation in any federally funded or guaranteed student loan program, unless it has adopted and has implemented a program to prevent the use of illicit drugs and abuse of alcohol by students and employees." Another federal law, the Controlled Substances Act, prohibits the possession, use, production, and distribution of marijuana for any and all uses, including medicinal use. This law is not affected by the passage of the Arizona Medical Marijuana Act. Because Maricopa Community Colleges could lose its eligibility for federal funds if it fails to prohibit marijuana, it is exempt from the requirements of the Arizona Medical Marijuana Act. Therefore, Maricopa Community Colleges will continue to enforce its current policies prohibiting the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance on its property or as part of any of its activities.

Employees and students who violate Maricopa Community Colleges policy prohibiting the use or possession of illegal drugs on campus will continue to be subject to disciplinary action, up to and including expulsion from school and termination of employment.

2.8 Students with Disabilities

2.8.1 Eligibility for Accommodations & Required Disability Documentation

This policy is intended to specify the disability documentation required that will qualify Maricopa County Community College District (MCCCD) students for reasonable and appropriate academic adjustments through each college's Disability Resources And Services (DRS) office.

Only accommodations granted by the respective college drs office and communicated to faculty through a Faculty Notification Letter (FNL) will be recognized by the District as approved accommodations for students with disabilities.

Faculty are not required to provide reasonable accommodations/academic adjustments to students with disabilities unless the student has registered with drs and engages in the interactive process.

I. General Eligibility Requirements

1. To receive services from the DRS, a student must be admitted and enrolled as an MCCCD student.
2. The student must provide the DRS office with documentation of a qualifying disability that verifies the nature and extent of the disability prior to receiving any accommodation or academic adjustment.
 - a. Any of the following submitted by an individual seeking admission to MCCCD is sufficient to establish that the individual is an individual with a disability:
 1. Documentation that the individual has had an individualized education program in accordance with Section 614(d) of the Individuals with Disabilities Education Act, including an individualized education program that is not current on the date of the determination that the individual has a disability. MCCCD may ask for additional documentation from an individual who had an individualized education program but who was subsequently evaluated and determined to be ineligible for services under the Individuals with Disabilities Education Act, including an individual determined to be ineligible during elementary school.
 2. Documentation describing services or accommodations provided to the individual pursuant to a Section 504 plan as defined in Section 15-731.

3. A plan or record of service for the individual from a private school, a local education agency, a state educational agency or an institution of higher education provided in accordance with the Americans with Disabilities Act of 1990.
4. A record or evaluation from a relevant licensed professional finding that the individual has a disability.
5. A plan or record of disability from another institution of higher education.
6. Documentation of a disability due to service in the uniformed services.

b. If a student does not have documentation, they are still required to follow the application and intake process, which includes meeting with a DRS representative and participating in the interactive process. Additional documentation may be required to establish the need for an academic adjustment/accommodation after a student has been identified as a student with disabilities (see section IV1(F)).

c. Provisional accommodations may be granted to a student by DRS to assist students while they collect appropriate documentation to support their eligibility for accommodations/academic adjustments. such provisional accommodations must not exceed thirty (30) days, unless such extensions are granted due to extenuating circumstances. In these cases, an additional thirty (30) days of provisional accommodations may be granted. Any extension request beyond the additional thirty (30) days must be reviewed by the District ADA/504 Coordinator. Such extension must be based on extenuating circumstances beyond the control of the requesting student, and is not guaranteed.

II. Who Is Eligible For Services

1. To be eligible for DRS support services, a student must have a disability as defined by federal law (Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the Americans with Disabilities Act Amendments Act of 2008 (ADAAA)).
2. An individual with a disability is a person who has a physical or mental impairment which substantially limits one or more major life activities. These persons are protected by Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Individuals with a record of such an impairment and individuals who are regarded as having such an impairment are also protected by these federal laws.
3. The definition of “disability” in Section 504 and the ada should be interpreted to allow for broad coverage.

III. Definitions

1. **Academic Adjustment** means: a modification of a non-essential academic requirement, an examination, or an institutional rule that is necessary to provide access to the academic and educational environment. Academic adjustments may include changes in the length of time permitted for completion of degree requirements, substitution of specific courses required for the completion of degree requirements, and adaptation of the manner in which specific courses are conducted. academic adjustments may not substantially or materially alter the course modality, curriculum, competencies or degree requirements.
2. **Accommodation** means: An alteration of environment, curriculum format, or equipment that allows a student with a disability to gain access to content and/or complete assigned tasks. accommodations allow students with disabilities to pursue a regular course of study. Since accommodations do not alter what is being taught, instructors should be able to implement the same grading scale for students with disabilities as they do for students without disabilities.

Examples of accommodations include, but are not limited to, sign language interpreters for students who are hearing impaired, computer text-to-speech, computer-based systems for students with visual impairments or dyslexia; extended time for students with fine motor limitations, visual impairments, or learning disabilities, and large-print books and worksheets for students with visual impairments.

3. **Current Documentation** means: documentation of a diagnosed physical or mental impairment that is dated within 5-7 years. Adult norms must be used for all testing provided as documentation.
4. **Major Life Activities** include, but are not limited to: functions such as caring for one's self, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating and working. Major life activities also include major bodily functions such as functions of the immune system, normal cell growth, and digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive function.
5. **Mental Impairment** means: any mental or psychological disorder, including but not limited to, intellectual disabilities (intellectual developmental disorder), organic brain syndrome, emotional or mental illness, specific learning disabilities, post-traumatic stress disorder, depression and bipolar disorder. The phrase substantially limits must be interpreted without regard to the ameliorative effects of mitigating measures, other than ordinary eyeglasses or contact lenses. Mitigating measures are things like medications, prosthetic devices, assistive devices, or learned behavioral or adaptive neurological modifications that an individual may use to eliminate or reduce the effects of an impairment. These measures cannot be considered when determining whether a person has a substantially limiting impairment. An impairment that is episodic or in remission is a disability if, when in an active phase, it would substantially limit a major life activity. For example, a student with bipolar disorder would be covered if, during manic or depressive episodes, the student is substantially limited in a major life activity (e.g., thinking, concentrating, neurological function, or brain function).
6. **Physical Impairment** means: a physiological disorder or condition, a cosmetic disfigurement, or an anatomical loss, that affects one or more of the following body systems: neurological; musculoskeletal; special sense organs (which would include speech organs that are not respiratory such as vocal cords, soft palate, tongue, etc.); respiratory, including speech organs; cardiovascular; reproductive; digestive; genitourinary; hemic and lymphatic; skin; and endocrine. Examples include, but are not limited to, orthopedic, visual, speech, and hearing impairments, cerebral palsy, epilepsy, muscular dystrophy, multiple sclerosis, cancer, heart disease, diabetes, HIV (symptomatic or asymptomatic), tuberculosis, drug addiction, and alcoholism.

IV. Procedures

1. General Procedures
 - a. The DRS office alone is responsible for evaluating documentation and determining eligibility and reasonable academic adjustments/accommodations.
 - b. Any instructor, academic staff member, or support staff (i.e., admissions or financial aid employees) who receives a request from a student for accommodations/academic adjustments due to a disability must refer the student to the college's DRS office.
 - c. All requests for academic adjustments/accommodations shall be considered on an individual, case-by-case basis and all reasonable and appropriate requests for academic adjustments/accommodations from eligible students shall be considered by DRS. DRS may exercise its right to require additional documentation in support of a request for academic adjustment/accommodation.

- d. Academic adjustments/accommodations are determined by the DRS office through an interactive exchange (the interactive process) with the eligible student. The interactive exchange may continue during the course of the year and may involve faculty members' input regarding the terms and conditions of the course or program of study. Accommodations/ academic adjustments in the classroom environment shall require participation of course faculty.
 - e. MCCCCD is not required to provide "best" or "most desired" accommodations, but rather a reasonable accommodation sufficient to provide the eligible student equal access to the educational environment/activities.
 - f. MCCCCD shall continue the interactive process to establish a reasonable accommodation for an individual pursuant to Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 until it finds an accommodation or accommodations that meet the needs of the individual and do not impose an undue burden on college/district.
2. Material Alteration of class or certification requirement
- a. If a faculty member believes the DRS approved academic adjustment/ accommodation would alter an essential academic course competencies, curriculum, or a licensing requirement, the instructor shall meet with the DRS office as part of the interactive process. In the event this issue was not previously addressed in the interactive process, a conversation with DRS should take place within five (5) days of the faculty member's receipt of the faculty notification letter outlining the approved academic adjustment/accommodation. The parties will attempt to resolve the concern.
 - b. If the faculty member's concerns are not resolved after the meeting with the DRS Manager, the faculty member and the DRS Manager will meet with the Chief Academic Officer, or designee, and the District ADA/504 Coordinator to resolve the concern. This meeting should take place within three (3) days of the meeting between the DRS Manager and the faculty member. The Chief Academic Officer's decision is final.
 - c. Any change in the DRS office's initial recommendation resulting from the meeting with the Chief Academic Officer will be communicated to the student by the DRS office and the interactive process will continue in an effort to provide reasonable and appropriate academic adjustments/accommodations.

V. Rights And Responsibilities

1. Students served by Disability Resources and Services have the right:
 - a. To an equal opportunity to access course information and materials
 - b. To an equal opportunity to participate in and benefit from the college community
 - c. To choose whether or not to disclose the nature of their disability to their professor(s). The information the student provides to DRS is protected by FERPA.
 - d. To request reconsideration of accommodation determinations if dissatisfied with the granted accommodations because they believe their disability(ies) is/are not being properly accommodated or if they believe they have been discriminated against during the interactive process.
2. **Students served by Disability Resources and Services responsibilities:**
 - a. Self-identify to DRS as having a disability and provide accurate, recent, and timely documentation.

- b. Check MCCCDC email and/or DRS connect portal for updates and announcements.
- c. Request accommodations each semester in a timely manner and understand that a late request does not constitute retroactive adjustments.
- d. Notify DRS if classes are dropped or added.
- e. Ensure that instructors have received the Faculty Notification Letter once it has been issued through drs connect.
- f. Communicate directly with DRS regarding exam accommodations, such as taking exams in the testing center, and stay in communication about the time and place for such exams.
- g. Contact DRS in a timely manner if having any difficulty securing or arranging accommodations.
- h. Promptly return any borrowed or assigned equipment (as an accommodation) to DRS when it is no longer needed.
- i. If approved for note taking or audio recording services, understand that these services are for personal use only and may not be shared. In addition, the student must understand that you must be present in class to receive these services.
- j. Understand that requesting accommodations does not mean that the student's request will be approved.
- k. Meet the same standards—academic, technical, performance, and behavioral—expected of all Maricopa County Community College students.
- l. Accommodations may be granted on a provisional basis (30 days). This may be based on the need for additional documentation. In these cases, the student will need to update their documentation to receive accommodations beyond the 30 days. The student must understand that approval will be based on a review of the new documentation and there is no guarantee that the provisional (or any) accommodations will be approved.
- m. Understand that faculty are not required to provide any accommodation that fundamentally alters the nature of their course or lowers the academic standards.

VI. General Disability Documentation Guidelines

Physical Disabilities

Maricopa County Community College District, Disability Resources and Services will accept current diagnoses of physical disabilities that are based on appropriate diagnostic evaluations administered by trained and qualified (i.e., certified and/or licensed) professionals (e.g., medical doctors, ophthalmologists, psychologists, neuropsychologists, audiologists).

Learning Disabilities

Maricopa County Community College District, Disability Resources and Services will accept diagnoses of specific learning disabilities that are based on comprehensive, age-appropriate, psychoeducational evaluations that demonstrate current functional limitations of the disability.

The assessment must be administered by a trained and qualified (i.e., certified and/or licensed) professional (e.g., psychologist, school psychologist, neuropsychologist, educational diagnostician) who has had direct experience with adolescents and adults with learning disabilities, including all battery scores in addition to evaluative notes.

Attention Deficit Hyperactivity Disorder (ADHD)/Attention Deficit Disorder (ADD)

Maricopa County Community College District, Disability Resources and Services will accept current diagnoses of ADHD that are based on age-appropriate, diagnostic evaluations, administered by trained and qualified (i.e., certified or licensed) professionals (e.g., psychiatrists, psychologists, or neuropsychologists). Submitted documentation must demonstrate current functional limitations of the disability.

Psychiatric Disabilities

Maricopa County Community College District, Disability Resources and Services will accept current diagnoses of psychiatric disabilities that are based on comprehensive and appropriate diagnostic evaluations completed by trained and qualified (i.e., licensed or certified) professionals (e.g., psychologists, psychiatrists, neuropsychologists, school psychologists).

Submitted documentation must demonstrate current functional limitations of the disability.

VII. Additional Documentation Guidelines and Resources

The Maricopa County Community College District, Disability Resources and Services can provide a “disability verification form” that can be completed by a trained and qualified professional, or the professional may choose to submit a letter. The letter must be on letterhead, with date and signature (including license number, if applicable), and must include the following:

1. a diagnostic statement identifying the disability (including the date of the diagnosis)
2. current severity/impact of the disability (mild/moderate/severe)
3. an assessment of major life activities that are impacted by the disability (e.g., learning, concentration, class attendance, social interactions, reading, walking, etc.) and
4. specific recommendations for accommodations. The DRS office alone is responsible for evaluating documentation and determining eligibility and reasonable academic adjustments/accommodations.

VIII. Request for Reconsideration and Grievance Procedure

1. REQUEST FOR RECONSIDERATION

- a. If a student is unsatisfied with either the academic adjustments/ accommodations granted by the DRS office or the denial of academic adjustments/accommodations, the student should submit **in writing** to the respective college DRS Manager/Director the specific reason(s) they are unsatisfied and the redress they seek. The DRS Manager/Director will respond to this communication within five (5) business days. The communication should outline the Manager/Director’s response as well as if there has been a determination that an adjustment or change of accommodation status is warranted.
- b. If the student is still dissatisfied with their academic accommodations or the denial of their accommodations, the student may submit a formal request for reconsideration of accommodation to the accommodation review committee (ARC).
 1. The request for reconsideration must be made in writing within ten (10) business days of the mailing of the DRS response to the initial request for reconsideration.
 2. This written request should be delivered to the district ADA/504 Coordinator and must include a statement of desired outcome. In reviewing a request for reconsideration, the ARC will rely on the

documentation available to the DRS at the time of the initial decision in making accommodation determinations.

3. The ARC shall consist of two (2) DRS Managers from colleges unaffiliated with the student, and one Equal Opportunity & Title IX Regional Program Director.
- c. The ARC will respond to students within ten (10) business days of the district ADA/504 Coordinator receiving the request for reconsideration.
- d. **The ARC may uphold the original accommodation determination or may return the matter to the granting college's DRS team to revisit the interactive process.** The decision of the ARC shall be final. Any changes to accommodations will be communicated **to the student by the DRS office.** Accommodations are not retroactive.

2. Grievance Procedure

- a. If a student believes they have been subject to unlawful discrimination based on their disability, the student may file a complaint under the [Discrimination Complaint Procedures for Students](#) (Appendix ND-2).

AMENDED through the Administrative Regulations Approval Process, June 12, 2023

AMENDED through Direct Approval by the Chancellor, September 14, 2022

AMENDED, November 15, 2021 (Office of Public Stewardship housekeeping update)

AMENDED through the Administrative Regulation Approval Process, June 24, 2021

AMENDED by Direct Approval from the Chancellor, January 4, 2017

2.8.2 Eligibility of Students Taking Reduced Course Loads

Although any student may register for fewer than twelve credit hours, a student with a disability may request a reduced academic load as a reasonable and appropriate accommodation. A college Disability Resource Services (DRS) professional may certify that a student who is afforded a reduced academic load as an accommodation for a disability shall nevertheless be deemed a full-time student. Such certification shall be solely to enable the student to seek eligibility for health insurance benefits and to seek eligibility to comply with mandates of the National Junior College Athletic Association. The college DRS professional will certify that a student may be deemed a full-time student as provided under this regulation only on a semester-by-semester basis.

The appropriate college offices will receive documentation of the DRS professional's certification from the professional or the student. An incoming student may apply for such certification upon acceptance to the college. Requests for certification must be made prior to the beginning of each semester. Every attempt will be made to accommodate these requests.

The following criteria also apply:

1. Students taking a reduced course load must register for at least 6 credit hours (based on DRS approval) during the regular fall and spring semesters. It is recommended that students register for at least three (3) credit hours during the summer to offset the impact of academic eligibility.
2. Students taking a reduced course load must maintain satisfactory academic progress standards as defined by the College catalog.
3. The reduced credit load may result in an adjusted financial aid package. There may be additional ramifications including, but not limited to, extra time to complete college, insurance coverage, Vocational Rehabilitation funding, etc.
4. Eligibility for Federal Stafford Loans may be reduced according to the total number of credit hours taken in the full academic year. A student, taking a reduced course load, must be at least half time in a semester (6 credits) in order to receive a Stafford Loan.

5. The amount of Federal Financial Aid (Title IV) awarded is based on the actual number of credit hours taken.
6. Requirements for continuation of funding through Vocational Rehabilitation may differ. The student must contact his/her VR counselor to determine how a reduced course load will impact their funding.
7. The National Junior College Athletic Association (NJCAA) has published standards in regard to the designation of Certified Disabled Student-Athlete in Article V Section J of the NJCAA bylaws. This procedure addresses the NJCAA criteria for reduced course loads.

Application Process

1. Applications for reduced course loads must be submitted to the Disability & Services professional with supporting documentation. Requests must be made prior to the beginning of each semester.
2. Supporting documentation must include a diagnostic evaluation from an appropriate professional. The documentation must meet the guidelines set forth by the Maricopa Community College District's Documentation Policy in order to evaluate the current impact of the disability in regards to the request. Students are required to complete an application form for this status every semester, but do not need to re-submit their documentation. Continuation of this status is not automatic. Each case will be re-evaluated at the end of the semester to determine if this accommodation is still appropriate.
3. Students requesting a reduced course load should consult with their academic advisor regarding the consequences of this status for making progress toward graduation requirements and eligibility for various academic distinctions and designations.
4. Students registered in occupational and/or academic programs that have specific block formats will not be considered for reduced course loads.
5. Students who are approved for a reduced course load will be required to sign the Reduced Course Load Approval Form (see [Appendix S-10](#)), which includes a statement acknowledging that he or she has reviewed the consequences that go with reduced load status and accepts them.
6. When a reduced course load status is granted by the Disability Resources & Services professional, a copy of the Reduced Course Load Approval Form will be sent to the appropriate individuals.

2.3.11 Academic Misconduct

1. Definitions

- A. Academic Misconduct - includes any conduct associated with the classroom, laboratory, or clinical learning process that is inconsistent with the published course competencies/objectives and/or academic standards for the course, program, department, or institution. Examples of academic misconduct include, but are not limited to: (a) cheating and plagiarism (including any assistance or collusion in such activities, or requests or offers to do so); (b) excessive absences; (c) use of abusive or profane language; and (d) disruptive behavior.
- B. Cheating is any form of dishonesty in an academic exercise. It includes, but is not limited to, (a) use of any unauthorized assistance in taking quizzes, tests, examinations, or any other form of assessment whether or not the items are graded; (b) dependence upon the aid of sources beyond those authorized by the faculty member in writing papers, preparing reports, solving problems, or carrying out other assignments; (c) the acquisition, without permission, of tests or other academic material belonging to or administered by the college or a member of the college faculty or staff; and (d) fabrication of data, facts, or information.
- C. Plagiarism is a form of cheating in which a student falsely represents another person's work as his or her own – it includes, but is not limited to: (a) the use of paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment; (b) unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials; and (c) information gathered from the internet and not properly identified.

2. Academic Consequences

Any student found by a faculty member to have committed academic misconduct may be subject to the following academic consequences, based on the faculty member's judgment of the student's academic performance

Warning - A notice in writing to the student that the student has violated the academic standards as defined in 1.A.

Grade Adjustment - Lowering of a grade on a test, assignment, or course.

Discretionary assignments - Additional academic assignments determined by the faculty member.

Course Failure - Failure of a student from a course where academic misconduct occurs.

3. Disciplinary Sanctions

A faculty member may remove a student from one (1) class meeting for disciplinary reasons. For involuntary removal from more than one (1) class period, the faculty member should invoke the procedures outlined in AR 2.5.2.

If the misconduct is sufficiently serious to warrant course failure, and if either

(a) the failure results in a student being removed from an instructional program or

(b) the student refuses to accept responsibility for the misconduct and its academic consequences, the faculty member will, in addition to awarding the course grade, consult the department chair and the vice president of academic affairs as to whether institutional sanctions set forth below should be sought under AR 2.5. Regardless whether the student has accepted responsibility for academic consequences, in all cases of academic misconduct the faculty member may make recommendations for sanctions and may file a written complaint of misconduct. The vice president of academic affairs will serve as the Student Conduct Administrator in all academic misconduct cases, and will follow the procedure established in AR 2.5.2 to evaluate whether disciplinary sanctions are warranted. College probation, suspension, or expulsion will be imposed only by the vice president of academic affairs or designee, and only after the student has received the procedural rights provided in AR 2.5.2.

Disciplinary Probation - Disciplinary probation is for a designated period of time and includes the probability of more severe sanctions if the student commits additional acts of academic misconduct.

College Suspension - Separation of the student from the college for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified. (A suspension from one Maricopa Community College will apply to all other colleges/centers in the District.)

College Expulsion - Permanent separation of the student from the college. (Expulsion from one Maricopa Community College will apply to all colleges/centers in the District.)

4. Appeal of Sanctions for Academic Misconduct

Students can appeal academic consequences by following the instructional grievance procedure (AR 2.3.5; [Appendix S-6](#)). Students may appeal disciplinary sanctions as provided in AR 2.5.2. If the student appeals through both processes, the instructional grievance process will be suspended until a final decision is reached in the student discipline procedure. In all cases in which financial aid has been adversely affected by academic consequences or disciplinary sanctions that are the subject of ongoing hearing or appeal proceedings, the student may appeal the financial aid determination on the grounds that a final decision has not been made. In such an event, a final decision on financial aid will not be made until after the final decision on consequences and/or sanctions.

AMENDED through the Administrative Regulation Approval Process, May 24, 2022

Amended through Direct Approval from the Chancellor and Executive Vice Chancellor & Provost on August 7, 2013

2.11 Student-Athlete Name, Image, Likeness Activity

The purpose of this regulation is to define the institutional guidelines and limitations relating to Maricopa County Community College District (MCCCD) student-athletes who use their name, images, or likenesses (NIL) for monetary compensation.

Regulation

1. **Scope and Definition** – For the purpose of this regulation, an “NIL activity” is any business activity in which a student-athlete is compensated in any way by a third party (not related to the Maricopa County Community College District) for the use of the student-athlete’s name, image, or likeness.
2. **Permissible NIL Activities** – Student-athletes may be compensated for participation in NIL activities so long as those activities are permissible under NJCAA and MCCCD/college policies and regulations, federal regulations, and comply with Arizona law.
3. **Student-Athlete Disclosure of NIL Activities** – Student-athletes must disclose the details of any NIL inquiry to their respective college’s Athletic Director prior to entering into any agreement. Once an NIL agreement is signed, a copy of the agreement must be given to the student-athlete’s Athletic Director for recordkeeping purposes. Any modifications to an existing agreement must be reported to the Athletics Director prior to the change being implemented and a copy of the signed, modified agreement must be delivered to the student athlete’s Athletic Director for recordkeeping purposes.
4. **No Impermissible Recruitment or Benefits through NIL Activities**– NIL activities may not be used by MCCCD or any of its representatives to recruit prospective student-athletes to MCCCD or for the purposes of compensating student-athletes for their athletic performance. Among other things, this means:
 - a. Compensation for NIL activities must be commensurate with the going rate for similar services in the relevant market.
 - b. Student-athlete staff members, including active outside consultants, may not assist student-athletes in the development, operation, or promotion of NIL activities.
 - c. Athletics staff members may not provide apparel or gear to student-athletes for purposes of NIL activities.
 - d. Student-athlete access to MCCCD resources and facilities for purposes of NIL activities is provided at the same level of availability and cost as to the public.
5. **Restrictions on Types of Businesses or Activities** – Student-athletes may not engage in NIL activities with people, institutions, businesses, or other entities in the following categories:
 - a. Alcohol and alcohol products;
 - b. Casinos, gambling, and sports betting/wagering;
 - c. Cannabis and marijuana in any form, along with associated products, dispensaries, or paraphernalia;
 - d. Firearms and other weapons;
 - e. Gentlemen’s clubs, adult entertainment, and/or escort services;
 - f. NJCAA banned substances;

- g. Political purposes or causes;
 - h. Post-Secondary educational institutions or online educational organizations;
 - i. Pharmaceuticals;
 - j. Sexually explicit materials; and/or
 - k. Tobacco products.
6. **NIL activities while participating as a student-athlete**– Student-athlete may not engage in NIL activities during required team activities or while representing MCCCDC in any capacity, including during travel related to MCCCDC athletics competition(s).

Student-athlete may not miss class to participate in NIL activities.

Student-athlete may not sell items provided by MCCCDC and/or the NJCAA until the student-athlete has exhausted all team eligibility. “Items,” for purposes of this regulation includes jerseys, gear, apparel, equipment, or awards. After the student has exhausted their eligibility, the student-athlete may sell items that are not required to be returned to the college, the NJCAA, or the college’s athletics department.

7. **Professional Service Providers**– Student-athletes may use professional service providers (e.g., marketing agents, brand managers) to assist with the management and procurement of NIL activities and to review NIL agreements. Such providers’ engagement must be limited to NIL activities and may not be used to secure opportunities as professional athletes. Professional services providers must be duly licensed as per state law requirements.
8. **Use of Institutional Marks** – Student-athletes may not use MCCCDC and college-specific intellectual property in connection with NIL activities without permission. Permission to use such intellectual property may be requested via the individual use of Intellectual Property Request form (see [Appendix S-19](#)). Student-athletes must request the use of protected marks at least five (5) days before the activity is scheduled to occur. Student-athletes cannot resell institutional marks (such as apparel) or copyrighted material that belongs to the college, district, or NJCAA.
9. **Review** – The respective college Athletics Director will review NIL activities for conflict with this regulation and NJCAA regulation. Neither the Athletics Director, nor any other MCCCDC entity will perform a legal review of the student-athlete NIL agreement.
10. **International Student-Athletes** – International student-athletes are not eligible to receive compensation for NIL agreements in the United States due to their visa status and lack of work authorization. International student-athletes should consult with MCCCDC’S District Compliance office to discuss whether they are eligible to receive NIL compensation from a United States company when the student-athlete is in their home country.
11. **Violations**– Violations of this regulation may result in a variety of penalties depending on the nature and type of regulation deviation. The most egregious deviations (i.e., proof that an NIL activity was used to compensate a student-athlete for performance or to induce a prospect to attend) may lead to termination of employment for staff members, booster dissociation, and student-athlete scholarship and athletic participation modification. Violations of NJCAA regulation will be reported to NJCAA and could result in additional NJCAA-mandated penalties. Penalties for student-athletes who violate this regulation will be commensurate with the nature and type of regulation deviation and will be addressed via the Student Code of Conduct.

12. The terms of this regulation may be modified at the discretion of the MCCCCD.

ADOPTED by Direct Chancellor Approval, September 14, 2022

DISCIPLINARY STANDARDS

2.5.1 Conduct Standards and Authority

Disciplinary Probation and Suspension Standards

According to the laws of the State of Arizona, jurisdiction and control over the Maricopa County Community College District (MCCCCD) are vested in the MCCCCD Governing Board. The MCCCCD Governing Board and its agents-the Chancellor, administration, and employees are granted authority to regulate student behavior subject to basic standards of reasonableness.

In developing responsible student conduct, the MCCCCD prefers mediation, guidance, and admonition. However, when these means fail to resolve problems of student conduct and responsibility, appropriate disciplinary procedures will be followed. The MCCCCD reserves the right to levy discipline rather than attempt mediation and guidance, based on the severity of the conduct.

AMENDED through the Administrative Regulation Approval Process, May 24, 2022

AMENDED by Direct Approval from the Chancellor, August 11, 2020

2.5.2 Student Conduct Code

The purpose of this Student Code of Conduct is to help ensure a productive and safe environment for students, employees, and visitors. This conduct code is not a stand-alone policy. This code is subject to the provisions outlined in AR 5.1.16, generally known as the Title IX policy, and AR 6.24, generally known as the Free Expression policy, and AR 5.1, generally known as the Non-Discrimination policy. There are other policies that may intersect with other administrative regulations.

Article I: Definitions

The following are definitions of terms or phrases contained within this Code:

1. **"College"** means a Maricopa County Community College District (MCCCCD) College or center/ site.
2. **"College premises"** means all land, buildings, facilities and other property in the possession of or owned, used, or substantially controlled by the college or MCCCCD.
3. **"College official"** means any person employed by the college or MCCCCD, performing assigned administrative or professional responsibilities pursuant to this Student Conduct Code. The college president shall designate the college/center official who is responsible for the administration of the Student Conduct Code.
4. **"Complainant"** means any person who submits a complaint alleging that a student violated this Student Conduct Code. When a student believes they have been a victim of another student's misconduct, the student who believes they have been a victim will have the same rights under this Student Conduct Code as are provided to the Complainant, even if another member of the college community submitted the Complaint itself.
5. **"Day"** means business day when college is in session, and shall exclude weekends and college/MCCCCD holidays.
6. **"Disruptive behavior"** means conduct that materially and substantially interferes with or obstructs the teaching or learning process in the context of a classroom or educational setting/facility, which includes educational or professional internships, clinical placements, or other experiential learning opportunities. Disruptive behavior also includes conduct that materially interferes with or obstructs college business operation.

7. **"District"** means the Maricopa County Community College District (MCCCD).
8. **"Faculty member"** means any person hired by the college or MCCCD to conduct classroom or teaching activities or who is otherwise considered by the college to be a member of the faculty in credit / non-credit courses and clock hour courses and programs.
9. **"Member of the college community"** means any person who is a student, faculty member, college official, or any other person employed by the college or center/site. A person's status in a particular situation shall be determined by the college President.
10. **"Organization"** means any number of persons who have complied with the formal requirements for college recognition.
11. **"Policy"** is defined as the written regulations of the college and/or MCCCD as found in, but not limited to, this Student Conduct Code and MCCCD Governing Board policy.
12. **"Respondent"** means any student accused of violating MCCCD's Student Conduct Code. Respondents enjoy the presumption of innocence until such time as the respondent is adjudicated to have violated the Student Conduct Code.
13. **"Student"** means any individual who is currently admitted or registered in credit or non-credit college programs on a full or part time basis, or who participates in a college function (such as orientation, in anticipation of enrollment) or who was enrolled in the immediate previous term or is registered for a future term, including college employees so admitted, registered, or enrolled.
14. **"Student Conduct Administrator"** means a college official authorized by the college official responsible for administration of the Student Conduct Code to impose sanctions upon students found to have violated this Student Conduct Code.
15. **"Threatening behavior"** means any written or oral statement, communication, conduct or gesture directed toward any member of the college community, which causes a reasonable apprehension of physical harm to self, others, or property. It does not matter whether the person communicating the threat has the ability to carry it out, or whether the threat is made on a present, conditional, or future basis.

Article II: Judicial Authority

1. Decisions made by a Student Conduct Administrator shall be final, pending the normal appeal process.
2. Matters pertaining to sexual harassment must always be referred first to the college Title IX Coordinator for review under AR 5.1.16. Conduct that does not meet the definition of sexual harassment as outlined in AR 5.1.16, or otherwise do not meet the definition of an educational program or activity, do not occur against a person within the United States, or are otherwise dismissed either under the mandatory or discretionary dismissal provisions will be referred by the Title IX Coordinator back to the college's respective Student Conduct Administrator for investigation and adjudication under the Student Conduct Code.

Article III: Prohibited Conduct

1. Jurisdiction

The Student Conduct Code shall apply to conduct that occurs on any college or MCCCD premises, or at any center/site or MCCCD-sponsored event or activity that adversely affects the college community and/or the pursuit of its objectives

A. Jurisdiction may be applied against student behavior conducted online, via email, or other electronic medium provided that it meets the criteria listed above. Further, jurisdiction under this policy applies to any person who is currently admitted or in credit or non-credit college programs or who participates in a college function (such as orientation, in anticipation of enrollment) or who was enrolled in the immediate previous term or is registered for a future term, including college employees so admitted, registered, or enrolled.

B. The Student Conduct Code shall apply to a student's conduct even if the student withdraws from school while a disciplinary matter is pending.

2. Title IX Sexual Harassment.

Matters pertaining to sexual harassment/misconduct that do not meet the definition of sexual harassment as outlined in Administrative Regulation 5.1.16 or otherwise do not meet the definition of an educational program or activity and do not occur against a person within the United States will be referred by the Title IX Coordinator to the College's respective Student Conduct Administrator for investigation and adjudication under the Student Conduct Code.

3. Disruptive Behavior in Class (Temporary Removal of Student)

Disruptive behavior includes conduct that distracts or intimidates others in a manner that interferes with instructional activities, fails to adhere to a faculty member's appropriate classroom rules or instructions, or interferes with the normal operations of the college. Students who engage in disruptive behavior or threatening behavior may be directed by the faculty member to leave the classroom or by the college official responsible for administration of the Student Conduct Code to leave the college premises. (Academic Misconduct AR 2.3.11). If the student refuses to leave after being requested to do so, college police may be summoned to provide assistance. For involuntary removal from more than one (1) class period, the faculty member should invoke the procedures outlined below.

4. Conduct - Rules and Regulations

Any student found to have committed the following misconduct is subject to the disciplinary sanctions outlined in Article IV:

A. Acts of dishonesty, including but not limited to the following:

- i. Knowingly furnishing false information to any college official or officer (including filing a false report or complaint), including during an official investigation (i.e., Title IX, conduct, or campus police investigation).
- ii. Forgery, alteration or misuse of any college document, record or instrument of identification, even if there is no reliance on the forged or altered document in the posting of grades or other academic/financial benefit.
- iii. Tampering with the election of any college-recognized student organization.
- iv. Financial aid fraud or corresponding behaviors that would allow a student to receive a monetary benefit for which they are not eligible.
- v. Misrepresentation of one's identity (see also Identity Theft Red Flag and Security Incident Reporting AR 6.11).
- vi. Misuse of the colleges copyrighted content and trademark (Copyright Act Compliance AR 2.4.5).
- vii. Knowingly filing a false report (Title IX, conduct, or campus police investigation) to a college official or campus police.

B. Obstruction or disruption of teaching, research, administration, disciplinary proceedings or other college activities, including its public service functions on campus, in clinical settings or other authorized non-college activities;

C. Conduct that intentionally or recklessly causes physical harm or that otherwise threatens or endangers the health or safety of any person.

- i. Physical abuse – hitting, pushing, use of a weapon, beating or other such activity resulting in or, intended to cause physical harm.
- ii. Making a threat(s) of violence (including verbal, written, or virtual communication) that does or could cause(s) a reasonable expectation of harm to the health or safety of a specific person.

iii. Substantial or repeated acts and/or harassment directed at a person or group of people that would cause a reasonable person to feel fearful and/or find intimidating, hostile, or offensive, including but not limited to, bullying, stalking, and hazing (Hazing Prevention Regulation AR 2.6) as defined in Article I.

iv. Any form of retaliation towards a complainant or any participant in an investigation or conduct process.

- D. Attempted or actual theft of, damage to, or unauthorized use of property of the college or property of a member of the college community or other personal or public property.
- E. Trespassing or unauthorized access to physical or virtual/cyber property or services of the college.
- F. Having an animal in a campus building, other than in accordance with MCCCCD policy (Domesticated Animals on Campus AR 3.9 and Guidelines for Service Animals on Campus) and ADA laws, such as permitted service animals individually trained to perform tasks for the benefit of an individual with a disability.
- G. Failure to comply with direction of college officials or law enforcement officers in the performance of their duties and/or failure to properly identify oneself to these persons when requested to do so.
- H. Unauthorized possession, duplication or use of keys to any college premises, or unauthorized entry to or use of college premises.
- I. Violation of any college or MCCCCD policy, rule or regulation published in hard copy or online, such as a college catalog, handbook, etc. or available electronically on the college's or District's MCCCCD'S website.
- J. Violation of federal, state or local law.
- K. Use, possession, manufacturing or distribution of illegal or other controlled substances except as expressly permitted by law, unless such use is prohibited due to a program of study for fields that are deemed safety sensitive positions. (Abuse-Free Environment AR 2.4.7, S-16 Statement on the Arizona Medical Marijuana Act Proposition 203).
- L. Illegal use, possession, manufacturing or distribution of alcoholic beverages or public intoxication.
- M. Smoking tobacco products, using e-cigarettes, or any other violation of the Smoke-Free/Tobacco-Free Environment policy (AR 4.12).
- N. Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on college premises, or use of any such item, even if legally possessed, in a manner that harms, threatens, or causes fear to others, or property damage (Weapons policy AR 4.6).
- O. Participation in a demonstration, riot or activity that disrupts the normal operations of the college and infringes on the rights of other members of the college community; leading or inciting others to disrupt scheduled and/or normal activities within any college building or area.
- P. Obstruction of the free flow of pedestrian or vehicular traffic on college premises or at college-sponsored or supervised functions.
- Q. Conduct that is disorderly, lewd or indecent; breach of the peace; or aiding, abetting or procuring another person to breach the peace on college premises or at functions sponsored by or participated in by the college or members of the academic community. Disorderly conduct includes but is not limited to: any unauthorized use of electronic or other devices or to make an audio or video record of any person while on college or MCCCCD premises without their prior knowledge, or without their effective consent or when such a recording is likely to cause injury or distress. This includes, but is not limited to, secretly taking pictures of another person in a gym, locker room, or restroom.
- R. Engaging in individual conduct that materially and substantially infringes on the rights of other persons to engage in or listen to expressive activity is subject to discipline under this conduct code. (Free Expression policy AR 6.24).
- S. Attempted or actual theft or other abuse of technology facilities or resources, including but not limited to:

- i. Unauthorized entry into a file, to use, read or change the contents or for any other purpose
 - ii. Unauthorized transfer of a file
 - iii. Unauthorized use of another individual's identification and/or password
 - iv. Use of technology facilities or resources to interfere with the work of another student, faculty member or college official
 - v. Use of technology facilities or resources to send obscene or abusive messages
 - vi. Use of technology facilities or resources to interfere with normal operation of the college technology system or network
 - vii. Use of technology facilities or resources in violation of copyright laws (Copyright Act Compliance AR 2.4.5)
 - viii. Any violation of the MCCCCD'S technology resource standards (Technology Resource Standards AR 4.4)
 - ix. Use of technology facilities or resources to illegally download files
 - x. Unauthorized use of intellectual property (Intellectual Property policy)
- T. Abuse of the Student Conduct system, including but not limited to:
- i. Falsification, distortion or misrepresentation of information before a Student Conduct Official.
 - ii. Invoking a Student Conduct Code proceeding with malicious intent or under false pretenses
 - iii. Attempting to discourage an individual's proper participation in, or use of, the Student Conduct system
 - iv. Attempting to influence the impartiality of the member of a judicial body prior to, and/or during the course of, the Student Conduct proceeding
 - v. Harassment, either verbal or physical, and/or intimidation of a Student Conduct Administrator prior to, during and/or after a Student Conduct proceeding
 - vi. Failure to comply with the sanctions imposed under this Student Conduct Code
 - vii. Influence or attempting to influence another person to commit an abuse of the Student Conduct Code system
 - viii. Failure to obey the notice from a Student Conduct or college official to appear for a meeting or hearing as part of the Student Conduct system.
- U. Engaging in irresponsible social media conduct. All Student Conduct policies apply to social networking platforms.
- V. Attempt to bribe a college or MCCCCD employee.
- W. Stalking behavior, which occurs if a student intentionally or knowingly maintains visual or physical proximity toward another person on two (2) or more occasions over a period of time and such conduct would cause a reasonable person to fear for their safety.
- X. Sexual misconduct, including but not limited to:
- i. The use or display in the classroom, including electronic, of pornographic or sexually harassing materials such as posters, photos, cartoons or graffiti without pedagogical justification.
 - ii. Explicit sexual comments by one (1) or more students about another student, or circulating drawings or other images depicting a student in a sexual manner.
 - iii. Unwelcome sexual advances, repeated propositions or requests for a sexual relationship to an individual who has previously indicated that such conduct is unwelcome, or sexual gestures, noises, remarks, jokes, questions, or comments by a student about another student's sexuality or sexual experience.
 - iv. Harassment based on sex, pregnancy, gender identity, gender expression, or sexual orientation that creates a hostile environment. A hostile environment exists when the conduct is sufficiently severe, persistent, or pervasive that it unreasonably interferes with, limits, or deprives an individual from participating in or benefitting from the MCCCCD education programs and/or activities. The existence of a hostile environment is to be judged both objectively (meaning a reasonable person would find the environment hostile) and subjectively (meaning the impacted individual felt the environment was hostile).
- Y. Sexual Exploitation
- i. Taking non-consensual or abusive sexual advantage of another for anyone's advantage or benefit other than the person being exploited. Examples of behavior that could rise to the level of Sexual Exploitation include:
 - a. Recruiting, harboring, transporting, providing, or obtaining another person for the purpose of sexual exploitation;

- b. Non-consensual visual (e.g., video, photograph) or audio-recording of sexual activity;
- c. Non-consensual distribution of photos, other images, or information of an individual's sexual activity, intimate body parts, or nakedness, with the intent to or having the effect of embarrassing an individual who is the subject of such images or information;
- d. Going beyond the bounds of consent (such as letting your friends hide in the closet to watch you having consensual sex);
- e. Engaging in non-consensual voyeurism;
- f. Knowingly transmitting an STI (sexually transmitted infection), such as HIV, to another without disclosing one's STI status;
- g. Exposing one's genitals in non-consensual circumstances, or inducing another to expose their genitals;
- h. Possessing, distributing, viewing or forcing others to view obscenity.

5. Violation of Law and College Discipline

- A. Disciplinary proceedings may be instituted against a student charged with conduct that potentially violates both the criminal law and this Student Conduct Code (that is, if both possible violations result from the same factual situation) without regard to pending civil or criminal litigation. If a criminal investigation and/or prosecution results from the same factual situation, proceedings under this Student Conduct Code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off campus at the discretion of the college official responsible for administration of the Student Conduct Code. Determinations made or sanctions imposed under this Student Conduct Code shall not be subject to change because criminal charges arising out of the same facts giving rise to violation of college rules were dismissed, reduced, or resolved in favor of or against the criminal law defendant.
- B. When a student is charged by federal, state or local authorities with a violation of law, the college will not request or agree to special consideration for that individual because of their status as a student. If the alleged offense is also being processed under this Student Conduct Code, however, the college may advise external law enforcement and other authorities of the existence of this Student Conduct Code and of how such matters will be handled internally within the college community. The college will cooperate fully with the law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators. Individual students and faculty members, acting within their personal capacities, remain free to interact with governmental representatives, as they deem appropriate.
- C. The Student Code of Conduct may apply to off-campus behavior that affects a substantial interest of the college. A substantial college interest means:
 - i. Any situation where it appears that the student's conduct may present a danger or threat to the health or safety of themselves or others; and/or
 - ii. Any situation that significantly impinges upon the rights, property or achievements of self or others or significantly breaches the peace and/or causes social disorder; and/or
 - iii. Any situation that is detrimental to the educational mission and/or interests of the college, unless it is protected by a student's constitutional right to free expression.

Article IV: Student Conduct Code Procedures

1. Allegations And Resolution Options

- A. Any member of the college community may file a complaint against a student for violations of this Student Conduct Code. A complaint may be in writing or verbally given to the Student Conduct Administrator. Once the complaint has been made, it shall be put in writing and a notice of allegation should be submitted to the Respondent. A Respondent must receive written notice of the allegations before a meeting is held with the Respondent regarding the conduct. The notice of allegations should outline the particulars of the complaint, the presumption of innocence, an outline of the Respondent's due process rights, and the contact information for the

Student Conduct Administrator.

- B. There is no statute of limitations for bringing a complaint under the Student Conduct Code, but it is advisable to bring a complaint as soon after the conduct being reported occurred.
- C. Both the Complainant and the Respondent shall have the right to be assisted by an Advisor of their choosing. A party who elects to be assisted by an Advisor must notify the Student Conduct Administrator of the name and contact information of the Advisor not less than two (2) days before the scheduled meeting with the party. Advisors may not be an attorney. Both the Complainant and the Respondent are responsible for presenting their own information during the course of the meeting. Advisors are not permitted to speak or participate directly in any Student Conduct meeting or proceeding and can be removed from proceedings by not abiding by these parameters.
- D. Misconduct that would fall under the jurisdiction of AR 5.1.16, meaning it alleges sexual harassment, discrimination, sexual assault, dating/domestic violence, or stalking should be forwarded to the Title IX Coordinator for a jurisdictional review. In such cases where the conduct alleged does not meet the definition of sexual harassment, as outlined in the Title IX Regulations (and MCCCCD policy AR 5.1.16) or is otherwise subject to mandatory or discretionary dismissal, the alleged conduct will be referred back to the Student Conduct Code for investigation and adjudication.
- E. After receiving information on alleged violations of the Student Conduct Code, the Student Conduct Administrator will review the information, gather facts, and make a determination on the appropriate next steps. Documentation regarding the aforementioned steps must be maintained. Next steps are:
 - i. Dismiss the case due to insufficient evidence, lack of jurisdiction, or the alleged behavior, even if proven true, would not violate the code.
 - ii. Proceed with a full, thorough, and impartial investigation with formal disciplinary proceedings.
 - iii. Initiate an informal resolution outside of formal disciplinary proceedings provided involved parties mutually agree and the Student Conduct Administrator determines this option is appropriate given the nature of the allegations. An informal resolution can also be an option when the Respondent accepts responsibility for the behavior.
 - iv. If the informal resolution option is initiated, the determination with regard to responsibility and sanctions is final and cannot be appealed.

2. Informal Resolution Options

- A. Informal resolution options include, but are not limited to: administrative dispositions, mediation, facilitated dialogue, and restorative justice practices.
- B. Determinations regarding the type of informal resolution offered in a particular case will be made in consultation with the Student Conduct Administrators, other MCCCCD leadership, as necessary, and the students at issue. Staff outside of the Student Conduct Administrator's office may be involved in facilitating the agreed upon option.
- C. Informal resolutions can result in the same sanctions and institutional responses as are reserved for matters that have been addressed through a full investigation.
- D. The Student Conduct Administrator will make the determination with regard to responsibility.
- E. Should new facts come forward during the informal resolution process that significantly alter the nature of the allegations, the Student Conduct Administrator has the discretion to initiate a full investigation. If one of the involved parties decides that the informal resolution option is not appropriate, they may request a full

investigation. This request must be submitted to the Student Conduct Administrator before the conclusion of the informal resolution process. If this action is taken, the Student Conduct Administrator will document the end of the informal resolution process and shall initiate a formal investigation.

F. Both the Complainant and the Respondent must sign an agreement to engage in the informal resolution process.

3. Interim Actions

A. If the Student Conduct Administrator is in receipt of information indicating that the Respondent poses a threat of harm or substantial disruption, the Student Conduct Administrator may take administrative action(s) to restrict, suspend, or alter the rights of a student for a temporary period. The interim action(s) will be communicated in writing to involved parties and will remain in place until a final decision on the pending allegations has been made or until the Student Conduct Administrator believes the reason(s) for issuing the interim action(s) no longer exists. These administrative actions are not designed to be punitive, and they are not issued as sanctions.

B. A student who is restricted from campus or suspended due to interim action(s) may appeal the interim action(s) in writing to the Dean or Vice President of Student Affairs (VPSA) who is over the Student Conduct Administrator, and in the case that a VPSA is the Student Conduct Administrator, to the President of the college, no later than five (5) business days following the effective date of the interim action(s). This person will determine, within five (5) business days of receipt of the appeal, if the interim action(s) should remain in place, be modified, or lifted.

C. Examples of interim actions include, but are not limited to, no contact directives, removal from a class or classes or specific MCCCCD locations, administrative removal from campus, administrative/enrollment holds, and temporary suspension.

D. Factors considered before issuing interim actions include, but are not limited to, individual safety, community safety, and the need to maintain an academic and work environment free from disruption. If the interim action is temporary suspension or removal from campus, the Student Conduct Administrator will consult with the college's behavioral assessment team as part of the decision-making process.

4. Notice Of Allegations And Investigation

A. The notice of allegations letter sent to the Respondent will also be sent to the Complainant. The notice of allegation should specify that the investigation will be done to determine, under the preponderance of the evidence standard, if a violation of the policy has taken place. The notice of allegations should outline the particulars of the complaint, the presumption of innocence, an outline of the Respondent's due process rights, and the contact information for the Student Conduct Administrator.

B. Investigations will be conducted in a fair and impartial manner. Respondents are treated with a presumption of innocence until such time as it has been adjudicated that a violation of the Student Conduct Code has taken place.

C. If during the investigation additional allegations are presented or if allegations outlined in the original notice of allegations have been retracted, the Respondent must receive an amended notice of allegations and shall be allowed to address the new allegations.

5. Investigation Process

A. At the beginning of the investigation interview, the Student Conduct Administrator will review with the party being interviewed:

- the Student Conduct Code,
- the investigation process,
- how determinations are made,
- possible sanction(s),
- the prohibition against retaliation,
- and appeal options.

B. Students are expected to comply with requests and directives issued by the Student Conduct Administrator performing duties connected to an investigation. Should a student choose to not participate in the conduct process, the Student Conduct Administrator will proceed with the investigation and make determinations without gaining input from the non-participating student.

C. After the investigative interview, respondents will be given up to five (5) days to reflect upon and respond to the allegations(s) in writing. The written response should be delivered to the Student Conduct Administrator within that time period. Likewise, Complainants and witnesses will be given up to five (5) days to reflect upon and respond to the information presented and outlined during the investigative interview. The Student Conduct Administrator does not need to provide interview notes or additional information to the student to facilitate this process.

D. A student can have an advisor present in all conduct proceedings, but the advisor cannot speak on the student's behalf.

E. Involved parties can identify witnesses who have information relevant to the investigation. These witnesses will be contacted by the Student Conduct Administrator who will assess the relevance of the witnesses and conduct interviews as appropriate.

F. Complainants and Respondents will be notified in writing when an investigation has concluded and the investigative report has been completed, which will encompass all information except for a final determination.

6. Determinations

A. The Student Conduct Administrator will determine whether it is more likely than not that a student and/or student organization violated the Student Conduct Code.

B. The Student Conduct Administrator will consider any mitigating or aggravating factors and determine the appropriate sanctions.

C. Within five (5) business days of the determination, the Student Conduct Administrator will provide the parties a written decision. The written decision will indicate whether or not the charge(s) was substantiated and, if the charge(s) was/were substantiated, will outline the remedial action(s) taken including sanctions if applicable, to be issued by the college. The determination letter will summarize the investigation and outline the determination made regarding the allegations outlined in the complaint, as well as state any issued sanction(s) based on a finding of responsibility.

D. Respondent will be informed of the right to appeal the determination and will be given instructions on how to do so in the decision letter.

7. Appeals

- A. The Respondent must submit a written appeal request to the supervising Dean Of Students or Vice President of Student Affairs (VPSA), or in the case that the Student Conduct Administrator is the VPSA, the President, no later than five (5) days from the date of the written determination.
- B. If no appeal is filed within the five (5) day window, the determination regarding responsibility for a violation under this policy and sanctions is final.
- C. Pending the filing of a timely appeal request, the decision by the Dean of Students or VPSA will delay the effective date of the disciplinary sanction.
- D. The grounds for an appeal are restricted to the following:
 - I. Procedural irregularity that affected the outcome of the matter, and
 - II. New evidence that was not reasonably available at the time determinations regarding responsibility was made, or that could affect the outcome of the matter.
- E. The Dean of Students or VPSA will notify the involved parties of a decision regarding the appeal within five (5) days of receiving the appeal request. Both parties to the original investigation will be notified of the appeal decision.
 - I. If the appeal is denied, the decision by the Student Conduct Administrator shall be considered final and binding upon all concerned.
 - II. If the appeal is granted, the rationale for the decision will be outlined in the decision letter as will the next steps in the process.
 - A. The appellate body has discretion upon granting an appeal to refer the matter back to the Student Conduct Administrator for re-consideration, or alter the sanction(s) only (including issuing more severe sanctions).

8. Matters Related to Infringement of the Right to Free Expression

- A. As outlined in Arizona Revised Statute 15-1866, any student who engages in individual conduct that materially and substantially infringes on the rights of other persons to engage in or listen to expressive activity is subject to discipline under this conduct code.
- B. In all disciplinary proceedings involving students, including proceedings involving expressive conduct, a student is entitled to a disciplinary hearing under published procedures that include, at a minimum, all of the following:
 - i. The right to receive advanced written notice of the allegations.
 - ii. The right to review the evidence in support of the allegations.
 - iii. The right to confront witnesses who testify against that student.
 - iv. The right to present a defense.
 - v. The right to call witnesses.
 - vi. A decision by an impartial person or panel.
 - vii. The right to appeal.
 - viii. If either a suspension of more than thirty (30) days or expulsion is a potential consequence of a disciplinary proceeding under this section, the right to active assistance of counsel.

9. Sanctions

- A. The following sanctions may be imposed upon any student found to have violated the Student Conduct Code:
 - i. **Warning** - a written notice to the student that the student is violating or has violated institutional rules or regulations.

- ii. **Disciplinary Probation** - a written reprimand for violation of specified rules or regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to violate any institutional rules or regulation(s) during the probationary period.
- iii. **Loss of Privileges** - denial of specified privileges for a designated period of time which can include, but is not limited to, eligibility for some leadership roles, scholarships, membership in college-affiliated organizations, programs, and activities, and restricted access to college premises.
- iv. **Restitution** - compensation for loss, damage or injury. This may take the form of appropriate service and/or monetary or material replacement.
- v. **Discretionary Sanctions** - work assignments, essays, service to the college or community, apology letters, educational programs, or other related discretionary assignments. (Such assignments must have the prior approval of the Student Conduct Administrator And will have specific due dates).
- VI. **Behavioral Requirement** - engagement with services or programs designed to address behaviors of concern through education and skill-building.
- VII. **College Suspension** - separation of the student from all the colleges in MCCCDC for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified. Suspension from **ONE** college means a suspension from **ALL** colleges in MCCCDC.
- viii. **College Expulsion** - permanent separation of the student from all the colleges in MCCCDC. expulsion from one college means expulsion from all MCCCDC colleges.
- IX. **Degree/Certificate Revocation** - permanent revocation of a student's degree and/or certificate.
- X. **Other Sanctions** - additional or alternative sanctions may be created and designed as deemed appropriate to the offense with the approval of the Student Conduct Administrator.

B. More than one of the sanctions listed above may be imposed for any single violation.

C. Disciplinary sanctions are part of a student's educational record.

10. Miscellaneous

A. Administrative Hold

The Student Conduct Administrator may place a temporary administrative hold preventing a student's registration, transcript release, or graduation if it is necessary to secure the student's cooperation in the investigation or compliance with an administrative direction. This hold is not a sanction but a necessary step to resolve the complaint promptly.

B. Academic Consequences

Violations of the student conduct code can have academic consequences if the violation also constitutes failure to meet standards of performance or professionalism set by the instructor or the program, or if it constitutes cheating, plagiarism, falsification of data, or other forms of academic dishonesty. In such cases, the instructor may award a failing grade for the assignment or the course in such cases, and the program faculty may decide that the student is ineligible to continue in the program. Academic consequences are determined by the faculty and academic administration, and are not dependent on the decisions of the college officials charged with the administration of

the Student Conduct Code.

Article V: Interpretation and Revision

Any question of interpretation regarding the Student Conduct Code shall be referred to the college official responsible for administration of the Student Conduct Code for final determination.

AMENDED through the Administrative Regulation Approval Process, May 24, 2022

AMENDED by Direct Approval from the Chancellor, August 11, 2020

2.5.3 Student Records

1. Definitions

For the purposes of this policy, the Maricopa County Community College District has used the following definition of terms.

- A. "College" includes all colleges, educational centers, skill centers and District office.
- B. "Educational Records" are any record (in handwriting, print, tapes, film, or other media) maintained by the college or an agent of the college which is directly related to a student, except:
 - i. A personal record kept by a staff member, if it is kept in the personal possession of the individual who made the record, and information contained in the record has never been revealed or made available to any other person except the maker's temporary substitute
 - ii. An employment record of an individual whose employment is not contingent on the fact that he or she is a student, provided the record is used only in relation to the individual's employment
 - iii. Records maintained by the colleges security unit, if the record is maintained solely for law enforcement purposes, is revealed only to law enforcement agencies of the same jurisdiction and the security unit does not have access to education records maintained by the community college.
 - iv. Records made or maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional, if the records are used *only* for treatment of a student or made available only to those persons providing treatment.
 - v. Alumni records which contain information about a student after he or she is no longer an attendant of the community college and the records do not relate to the person as a student

2. Records Request

Official verification of educational records is issued by the Admissions and Records Office/Office of Student Enrollment Services.

3. Fees

If a copy(ies) of a portion or all of the records in a student's file is requested, the custodian of the records may charge a fee for copies made. However, the willingness or ability to pay the fee will not effectively prevent students from exercising their right to inspect and review (under supervision of a college employee) their records. A fee will not be charged to search for or to retrieve records. Standard fees for printing and duplication services will apply.

4. Annual Notification ([SEE ALSO FERPA EXPLANATION](#))

Students will be notified of their rights annually by electronic mail in a FERPA Annual Notification. Students rights may also be provided via the following means: FERPA Annual Notification placement on the college website, publication in the college catalog and/or the student handbook:

Individuals requesting admission or enrollment at any of the Maricopa County Community Colleges are asked to provide certain contact information that is collected and used for the purpose of responding to the request. The information collected may include your name, address, telephone number or email address. Maricopa county community colleges and/or its agents, including attorneys and/or collection agencies, may use this information to contact you through various means, including phone calls, text messages, e-mail and postal mail. Communication may include, but is not limited to, information regarding account balances, programs and services that MCCCDC offers.

5. Rights of Access to Educational Records

The Family Educational Rights and Privacy Act (FERPA) affords eligible students certain rights with respect to their education records. (FERPA defines an “eligible student” as a student who has reached 18 years of age or is attending a postsecondary institution at any age). These rights include:

A. *The right to inspect and review the student's education records within 45 days after the day the college receives a request for access.*

1. Students should submit to the Admissions & Records Office/Enrollment Services written requests that identify the record(s) they wish to inspect. The form to do so may be found [HERE](#). The college official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the college official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. There may be occasions when a record may not be copied, especially if doing so may compromise another student or faculty member's privacy. The college or district may deny access to the following records:
 - a. Parents' financial statements;
 - b. Letters of recommendation, if the student has waived his or her right of access;
 - c. Records filed before January 1, 1975; or
 - d. Records not included in the FERPA definition of educational records.
3. The Maricopa County Community College District and its associated colleges reserve the right to deny copies of records, including transcripts, in any of the following situations:
 - a. The student has an unpaid financial obligation to the college or District;
 - b. There is an unresolved disciplinary action against the student; or
 - c. The educational record requested is an exam or set of standardized test questions.

B. *The right to request the amendment of the student's education records that the student believes is inaccurate, or misleading.*

1. Students may ask the college to amend a record that they believe is inaccurate or misleading. They should write the college official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.
2. A proper request to correct a student education record must:
 - a. Be written to the College Registrar;
 - b. Clearly identify the part of the record they want to be changed; and
 - c. Specify why the record is inaccurate or misleading.
3. Any written request which does not include the required information will not be considered. The requestor will be notified in writing that their request was not properly submitted and they will receive directions on how to resubmit it.
4. If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing. The FERPA Appeal Process is also outlined in the student handbook and in [Appendix S-17](#) of the MCCC Administrative Regulations.

C. *The right to provide written consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.*

1. With the exception of directory information and the various FERPA authorized disclosures without consent, the Maricopa County Community College District or its associated colleges must receive written consent from students before disclosing any personally identifiable information from educational records. The FERPA Release Of Information Consent MAY BE FOUND [HERE](#).

CONDITIONS OF DISCLOSURE WITHOUT CONSENT

FERPA permits the disclosure of personally identifiable information (PII) from students' education records, without consent of the student, if the disclosure meets certain conditions found in §99.31 of the FERPA regulations. Except for disclosures to school officials, disclosures related to some judicial orders or lawfully issued subpoenas, disclosures of directory information, and disclosures to the student, §99.32 of FERPA Regulations requires the

institution to record the disclosure. Eligible students have a right to inspect and review the record of disclosures. A postsecondary institution may disclose PII from the education records without obtaining prior written consent of the student:

1. To other school officials, including instructors, administrators, supervisors, Governing Board members, academic or support staff, law enforcement and health staff, within the MCCCDC whom the college or District has determined to have legitimate educational interests. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities. This includes contractors, attorneys, auditors, collection agents, consultants, volunteers, or other parties to whom the college has outsourced institutional services or functions, provided that the conditions listed in §99.31(A)(1)(I)(B)(1) – (A)(1)(I)(B)(2) are met. (§99.31(A) (1))
2. To officials of another school where the student seeks to or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student’s enrollment or transfer, subject to the requirements of §99.34. (§99.31(A) (2))
3. To authorized representatives of the US Comptroller General, the US Attorney General, and the US Secretary of Education, or State and Local Educational Authorities, such as a state postsecondary authority that is responsible for supervising the college’s state supported education programs. Disclosures under this provision may be made, subject to the requirements of §99.35, in connection with an audit or evaluation of federal-or state-supported education programs, or for the enforcement of or compliance with federal legal requirements that relate to those programs. These entities may make further disclosures of PII to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation, or enforcement, or compliance activity on their behalf (§§99.31(A) (3) AND 99.35)
4. In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, determine the conditions of the aid, or enforce the terms and conditions of the aid. (§99.31(A) (4))
5. To organizations conducting studies for, or on behalf of, the college, in order to: (A) Develop, Validate, or Administer Predictive Tests; (B) Administer student aid programs; or (C) Improve instruction (§99.31(A) (6))
6. To accrediting organizations to carry out their accrediting functions. (§99.31(A) (7))
7. To parents of an eligible student if the student is a dependent for IRS tax purposes. (§99.31(A) (8))
8. To comply with a judicial order or lawfully issued subpoena.(§99.31(A) (9))
9. To appropriate officials in connection with a health or safety emergency, subject to §99.36. (§99.31(A) (10))
10. Information the college has designated as “Directory Information” under §99.37. (§99.31(A) (11))
11. To a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of §99.39. The disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding. (§99.31(A) (13))
12. To the general public, the final results of a disciplinary proceeding, subject to the requirements of §99.39, if the school determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the college’s rules or policies with respect to the allegation made against him or her.(§99.31(A) (14))
13. To parents of a student regarding the student’s violation of any federal, state, or local law, or of any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21. (§99.31(A) (15))

Students who believe that MCCCDC or an agent of the college has disclosed information contrary to the provisions outlined in this section may submit a grievance via the non-instructional complaint resolution process. The process is posted at: [S-8 Non-Instructional Complaint Resolution](#)

D. The right to file a complaint with the US Department to Education concerning alleged failures by the college to comply with the requirements of FERPA.

The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
US Department of Education
400 Maryland Avenue SW

- E. **2012 FERPA AMENDMENT:** As of January 3, 2012, the U.S. Department of Education’s FERPA Regulations expand the circumstances under which your education records and Personally Identifiable Information (PII) contained in such records—including social security number, grades, or other private information—may be accessed without student consent. For more information on this amendment, please see: [FERPA
HTTPS://DISTRICT.MARICOPA.EDU/CONSUMER-INFORMATION/FAMILY-EDUCATIONAL-RIGHTS-PRIVACY-ACT-FERPA](https://DISTRICT.MARICOPA.EDU/CONSUMER-INFORMATION/FAMILY-EDUCATIONAL-RIGHTS-PRIVACY-ACT-FERPA)

F. Student Directory Information

1. A Maricopa County Community College may release directory information about any student who has not specifically requested the withholding of such information. Students who do not want directory information released may so indicate during the admissions process or notify the Admission & Records Office/Enrollment Services.

A. Students should consider very carefully the consequences of a decision to withhold directory information. A privacy block will call for the college or District to not release this directory information. Therefore, any future requests for such information from non-institutional persons or organizations will be refused.

2. Students may request their college to withhold the sharing of directory information by filing out a [Request To Withhold Directory Information](#) form and submitting that form to the college Admission & Records Office/Enrollment Services.

3. Directory information is considered public information. At any Maricopa County Community College, directory information is defined as a student's:

- A. Name
- B. Address
- C. Phone Number
- D. MCCCCD Email Address
- E. Photograph/Electronic Image
- F. Place of Birth
- G. Major Field of Study
- H. Current Enrollment Status
- I. Participation in Officially Recognized Activities
- J. Dates of Attendance
- K. Degrees Awarded
- L. Awards and Academic Honors Received/Dean’s List Selection
- M. Previous Institutions Attended
- N. Program and promotional materials on participants in various sports and similar public activities, including weight and height of athletic team members.

G. Disclosure to Parents

In accordance with federal law, college officials may disclose educational records to parents of a student who have established the student's status as a dependent according to the Internal Revenue Code of 1986, section 152, without the written consent of the student.

RELEASE OF DIRECTORY (PUBLIC) INFORMATION

At its discretion, the college or District may provide *Directory Information* in accordance with the provisions of FERPA. Types of information considered As *Directory Information* are listed below. additional information may be found at: DISTRICT.MARICOPA.EDU under Consumer Information.

BLOCKING THE RELEASE OF DIRECTORY (PUBLIC) INFORMATION

By default, a college or District may release a student's directory information. Students may prohibit (or block) the public disclosure of directory information by completing a **PRIVACY BLOCK** form.

Students should consider *very carefully* the consequences of a decision to withhold directory information. A privacy block will call for the college or District to not release this *directory information*. Therefore, any future requests for such information from non-institutional persons or organizations will be refused.

Although the college or District will honor a student's request to withhold directory information, it cannot *assume responsibility* to contact the student for subsequent permission to release this information. Regardless of the effect upon the student, the college or District assumes no liability as a result of honoring a student's instructions to withhold such information.

ADDITIONAL INFORMATION:

- If a student blocks directory information, it still may be inspected by those MCCCDC officials authorized by law to inspect education records without consent.
- If a student chooses to block directory information, it cannot be released to friends, family, prospective employers, the news media, advisors, student activities, and honors societies.
- Some reasons for considering a privacy block on directory information include harassment or the advice of a legal or medical professional.
- If a student wishes to keep public data private but release information so it can be published in commencement programs and honors lists, contact the office of Admissions & Records/Enrollment Services at the appropriate college(s).

If a student wishes to remove the privacy block, he or she must rescind the previous block. The college and District cannot assume responsibility to contact students for subsequent permission to release this information. It is the sole responsibility of the student to initiate the release of blocked information.

USING SOCIAL SECURITY NUMBERS

Due to identity theft concerns and privacy issues, students will no longer be asked to provide a social security number as a personal identifier. Instead, students will be assigned a student id number upon enrollment that can be used to access education records, as needed.

**TECHNICAL CORRECTION made to remove duplicative and contradictory language (DOB), October 26, 2021
AMENDED through the Administrative Regulations Approval Process, June 4, 2019**

[Appendix S-17: FERPA Appeal Process](#)

FERPA APPEAL PROCESS

In instances where the college decides not to amend an education record as requested by the student, the college will notify the student of the decision and advise him/her of the right to an appeal hearing according to the following process:

- The student must have first presented the issue in writing to the college's Admissions/Enrollment Office or designee identifying the records that he/she wishes to have amended and provided any supporting documentation. Note: With the exception of clerical errors, requests that are expressly related to grade disputes are not subject to this process and must be vetted through the Instructional Grievance Process.

- If the request to change the record was deemed unsubstantiated by the college designee and the institution was able to demonstrate that the record was accurate, the student will be informed of the right to a formal appeal hearing.
- Students must request a formal hearing within 10 business days from the date they are informed of the right to an appeal hearing.
- The request for a formal hearing must be in writing and delivered to the [Dean of Admissions/Enrollment Services, Vice President of Student Affairs] or designee.
- The college official who receives the formal hearing request will either review the case personally or designate a hearing committee if the issue involves a matter not clearly established by current policy or administrative regulation.
- A written decision will be delivered to all parties summarizing the evidence and stating the reason(s) for the decision. If the decision is in favor of the student, the education record will be amended. If the decision is for the record to remain the same, the student may place a statement commenting on or disagreeing with the decision in the education record.

STUDENT HANDBOOK

2.5.4 Student Employment

1. District Student Employees

A. Introduction

Students may be employed by the college as student help. District regulations require that students be hired in essential jobs and that they be properly trained and supervised.

B. Philosophy and Workload for Student Employees

- It shall be the philosophy of Maricopa Community College District that a student may work to augment college and living expenses, however, the scholastic endeavor should be foremost. Sufficient time should be allotted for classroom attendance, homework, out-of-class study and participation in activities.
- A workload of twenty (20) hours per week should be established as the maximum number of hours a student employee may work on campus. All student employees shall be enrolled in a minimum of three (3) semester credit hours. Any combination of day and evening hours would meet this requirement. Any student employee having special reasons to work over 20 hours per week or having dropped below three (3) credit hours should request his/her immediate supervisor to obtain approval from the College president or his/her designee.
- During the summer sessions, students may be eligible for employment if they were enrolled for a minimum of three (3) semester credit hours at the end of the spring semester, or if they have been accepted for admission for the fall semester. Exceptions to the three (3) semester credit hours may be made by the president or his/her designee. Summer shall be designated as the time from the official end of the spring semester to the beginning of classes for the fall semester.

C. Student Employee Benefits

As student employees, there are no entitlements to employee benefits; i.e., vacation, retirement, sick leave, health and life, or disability insurance. Students will, however, be covered under Worker's Compensation Insurance.

D. Student Employment Records

Student employee records will be maintained at the Financial Aid office, the office of the fiscal agent or the Career/Placement Office and will be reviewed periodically by the Vice President of Students Affairs.

E. Student Compensation

The hourly rate of pay for student employees shall coincide with the policies of the District Salary Schedule.

F. Employee Contracts and Forms (See [Appendix FM-3](#))

Student Employee Grievance Procedure

- G. Part-time student employees working for one of the Maricopa Community Colleges may wish to file a grievance relating to certain working conditions or violation of student employment regulation. Please refer to the Non-Instructional Complaint Resolution Process ([AR 2.3.12](#))

2. Student Security Guards

A. Introduction and Philosophy

Students may be employed by the college as student help. If student guards do not come from the ranks of Administration of Justice classes, they must undergo appropriate training to qualify them as student guards. This training program is outlined in the regulation.

B. Workload of Student Security Guards

- i. Student security guards shall be enrolled for a minimum of three (3) semester hours.
- ii. Student security guards shall be limited to 20 hours per week when the workweek starts at 7:00 a.m. on Monday and concludes at 11:00 p.m. on Friday. Additional hours may be worked if guards are assigned special duty at games or activities held on campus during the weekend, or if guards are assigned a shift on Saturday and Sunday, between 7:00 a.m. and 11:00 p.m.

C. Students not in Administration of Justice Program

- i. Use of student other than those in Administration of Justice Program:
 - 1. Selection of the student must be personally approved by the vice president of students affairs and chief of security.
 - 2. Selection of a student should not extend beyond one semester without the approval of the vice president of students affairs.
 - 3. Selected student must undergo a special training program directed by the chief of security and approved by the vice president of student affairs.
- ii. Recommended program for students other than those in Administration of Justice programs: Students employed by campus security who are not majors in the Administration of Justice program should be given at least twenty (20) hours of training with pay before being allowed to function independently as a campus security guard. This training should include, but not be limited to instruction in:
 - 1. Wearing of the uniform, general appearance, and demeanor
 - 2. The use of the various security report forms and how to properly complete them to provide requested information; General report writing methods
 - 3. Public relations methods used on the campus
 - 4. Crime prevention methods used on the campus; Patrol methods used in buildings and grounds.
 - 5. Basic techniques for interviewing students, faculty and visitors relative to the incidents
 - 6. Laws and regulations governing the actions of campus security personnel concerning rendering of assistance to students, faculty and visitors on the campus
 - 7. Basic first aid

D. Student Security Guards Employee Benefits

As student employees there are not entitlements to employee benefits; i.e., vacation retirement, sick leave, health and life, or disability insurance. Students will, however, be covered under Worker's Compensation Insurance.

E. Student Employment Records

The student security guard's employment records will be maintained at the office of the chief of security and reviewed periodically by the Vice President of Student Affairs.

2.5.5 Student Governance

Student governing bodies derive their authority from the Maricopa County Community College District Governing Board that exists in accordance with Arizona Revised Statutes. The administration of the District is vested in the Chancellor who delegates responsibility for each college to the College President who serves in a management and policy implementation capacity having the ultimate responsibility for all activities of the college. The President shall designate the administrator(s) (i.e., directors of student leadership) at each college who will be charged with the responsibility for working with the college student governing body(ies) in the development of college student activities and programs.

A representative form of student governance may exist at each college/center as well as district wide to provide an effective means of communication among students, faculty, staff and administration and to provide student input in college and District matters. Eligibility requirements are to be met and spelled out in detail in each student governance constitution. These constitutions shall establish the minimum requirements for the elective/appointive officers. All student government constitutions shall be submitted to the Governing Board General Counsel to ensure compliance with federal and state laws, the Maricopa Community Colleges Governing Board Policies and the Chancellor's Administrative Regulations. Since Rio Salado Community College is a countywide non-campus college, the president shall ensure that opportunities exist for student involvement.

College student constitutions should be reviewed annually by student governance. The appropriate vice president or designee of each college shall be responsible for submitting any changes to the president of the college for transmittal to the Governing Board General Counsel.

1. Officers/Members

All reference in this document to positions will designate whether the position is an officer position or a member position.

Each student governance constitution shall define which of its elected positions (maximum of 5) within its structure shall be designated as officers. The persons filling those positions shall be referred to, in this document, as officers. Persons filling all other positions, elected or appointed, shall be referred to as members (excluding non-voting committee members).

All positions filled by election shall be considered as elected positions, even though the person filling the position may have been appointed to fill an unexpired term of another individual.

2. Designation

Colleges with two (2) student governments shall designate the governments as "day" or "evening." Colleges with one (1) government shall be considered day students, for the purposes of this document.

3. Eligibility for Office

All student governance constitutions shall prescribe that all persons elected or appointed as officers shall be enrolled in and maintain a minimum of six (6) credit hours for day student governments, three (3) credit hours for evening student governments. Officers shall have and maintain a minimum cumulative grade point average of 2.50 and be in good standing (not on probation) according to the written district policy. Convicted felons shall be ineligible for office (ARS § 13-904). The constitution may, however, set more rigid requirements, if so desired by college student governance.

4. Tenure of Position

Tenure in any student governance position shall be determined by the respective student governance constitutions. In no case shall any student be allowed to serve in any combination of officer/member positions beyond a total of ten (10) semesters. Tenure in any combination of officer positions shall be limited to four (4) semesters.

5. Removal from Office

Provisions shall be made in all student governance constitutions for removal for cause of individuals from elected or appointed student governance positions.

6. Remuneration Limitations

- A. Student body officers may receive financial support and/or a letter grade in a leadership class during their terms of office as authorized in their respective student governance constitutions. Student body officers (maximum 5) may receive up to twenty (20) hours per week in financial support and/or up to six (6) credit hours in leadership classes per semester. Remuneration shall be for services rendered and not for merely holding the office.
- B. For qualifying students, Federal Work Study (FWS) funds may be used in accordance with Federal guidelines.
- C. The allowance for awarding honorariums or scholarships for executive student officers is a maximum of \$200.00.
- D. Compensation may be received for both honorariums/scholarships and college employment in the same semester.

7. Amending Student Constitutions

College student constitutions should be reviewed annually by student governance. The appropriate vice president or designee of each college shall be responsible for submitting any constitutional changes to the President of the college for transmittal to the Governing Board General Counsel.

8. Student Governance Advisors

College organization advisors will be provided for in each student governance constitutions. Such advisors shall be full-time or part-time employees of the Maricopa Community Colleges.

Recommendations for appointment of an advisor may be submitted to the appropriate vice president or college president. Recommendations for dismissal of an advisor with just cause may be submitted to the appropriate vice president or college president.

9. Legal/Fiscal/Financial Matters

Authority and responsibility beyond the scope specifically covered in student policies, or interpretation of such matters within laws, board policies, etc. shall rest with the offices of General Counsel and Chancellor, respectively.

10. Final Authority

In the event of a complete breakdown of the governance body, the college president will serve as the final authority.

Student Clubs and Organizations

In addition to student governing bodies, student clubs and organizations may be formed that fall under the operational direction of the Office of Student Life and Leadership and the administrative direction of the Vice President of Student Affairs at each college. Student clubs and organizations are generally interest-based in nature (such as for a particular program, discipline, or college activity) and are considered to be an important part of the total college experience. Each college shall outline the requirements necessary to establish the formation of an interest-based student club and organization (i.e., mission/purpose, size, structure, advisors). Club advisors shall be employees of the Maricopa County Community College District.

In most instances, student clubs and organizations shall be open to all students who are enrolled in credit courses at a Maricopa Community College. Pursuant to ARS §15-1863, religious or political student organizations may determine that the organization’s internal affairs, selecting the organization’s leaders and members, defining the organization’s doctrines, and resolving the organization’s disputes are part of the organization’s religious or political mission and that only persons committed to that mission should conduct such activities. For religious and political organizations, state statute recognizes the role that viewpoint serves in the mission and purpose of the organization’s operations. Thus, such groups may elect to select members based upon organizational doctrine. The MCCCCD may not deny recognition or any privilege or benefit to a religious or political student organization or group that exercises its rights pursuant to the statute.

Whereas ARS §15-1863 allows religious and political organizations to determine their internal affairs and the selection of their leaders and members, the MCCCCD non-discrimination policy is applicable to all other aspects of these student clubs and organizations.

*******INSERT INTO PROGRAM SECTION OF THE CATALOG AS ALLIED HEALTH*******

Appendix S-13: The Maricopa Community Colleges Allied Health or Nursing Program

Allied Health or Nursing Assumption of Risk/Release of Liability

Most of the allied health or nursing program pathways include a program of study in a clinical training environment that may contain exposures to risks inherent in patient-oriented educational experiences (such as but not limited to bodily injury or communicable and infectious diseases). Students enrolling in clinical educational courses will be asked to sign a statement assuming all risks inherent in their coursework.

Use of Confidential Information

Students enrolled in allied health or nursing program pathways will have learning experiences in a health care setting where they will have access to confidential information. Prior to beginning any clinical studies, the students will be asked

to sign an agreement to adhere to the requirements of those clinical sites and applicable law, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

MCCCD Required Background Checks

Students enrolled in an MCCCD allied health or nursing program are required to complete and pass clinical learning experiences, working with children, elderly persons, and other vulnerable populations. MCCCD's major clinical agency partners now mandate that any college students assigned to them for clinical experiences submit to a comprehensive background clearance prior to entering such learning experiences. Because the clinical experience portion of the programs is critical to completing a program of study, MCCCD has instituted two specific background check requirements in order for a student to enroll in a program. First, the student must obtain, at his or her own cost, a Level I Fingerprint Clearance Card from the Arizona Department of Public Safety. Precluding offenses for a Level I card can be found in Arizona Revised Statute § 41-1758.07

(<https://www.azleg.gov/viewdocument/?docName=https://www.azleg.gov/ars/41/01758-07.htm>). Additionally, students must also obtain a "pass" status on a MCCCD supplemental background check from MCCCD's authorized background check contractor. The student must also pay for this background check. The supplemental check will be based on the most stringent standards of MCCCD's clinical experience partners.

The sole program for which the background check requirements are different is the Emergency Medical Technician program. For that program, students must have obtained a Level 1 Fingerprint Clearance Card from the Arizona Department of Public Safety. They are also required, at the time of their clinical assignments, to submit to, pay for and pass any additional background check requirements of the clinical agencies to which their EMT program places students.

Certain licensing boards may require a separate background check or clearance card upon application for licensure or certification.

The MCCCD supplemental background check review may include searches of the following databases and information but MCCCD reserves the right to change the search criteria and the program background check requirements at any time without notice:

1. *National Federal Health Care and Abuse Databases*
2. *Social Security Verification*
3. *Residency History*
4. *Arizona Statewide Criminal Records*
5. *Nationwide Criminal Databases*
6. *Nationwide Sexual Offender Registry*
7. *Homeland Security Search*

Examples of background information that will result in a "fail" status on the supplemental background check include:

1. *Social Security number does not belong to the applicant*
2. *Any inclusion on any registered sex offender database*
3. *Any inclusion on any of the Federal exclusion lists or Homeland Security watch lists*
4. *Any conviction of a felony no matter what age of the convictions*
5. *Any warrant any state*
6. *Any misdemeanor conviction for the following no matter how long ago:*
 - A. *Violent crimes*
 - B. *Sex crime of any kind including non consensual sexual crimes and sexual assault*
 - C. *Murder, attempted murder*
 - D. *Abduction*
 - E. *Assault*
 - F. *Robbery*
 - G. *Arson*
 - H. *Extortion*
 - I. *Burglary*

- J. *Pandering*
 - K. *Any crime against minors, children, vulnerable adults including abuse, neglect, exploitation*
 - L. *Any abuse or neglect*
 - M. *Any fraud*
 - N. *Illegal drugs*
 - O. *Aggravated DUI*
7. *Any misdemeanor controlled substance conviction in last 7 years*
 8. *Any other misdemeanor conviction within last 3 years*

EXCEPTIONS: Any misdemeanor traffic (DUI is not considered traffic).

The information that MCCCCD uses for the “pass/fail” background check is subject to change at any time without notice.

MCCCCD recommends that students carry proof of the background clearance at all times during any clinical agency learning experience.

Duty to Report Changes; Removal

Students have an obligation to immediately report to the director of their program any change in the information that they supplied on forms submitted to initiate background checks relating to the allied health or nursing program. That includes information provided to the Arizona Department of Public Safety and MCCCCD’s supplemental background check vendor, as well as that related to the background check required by a clinical agency. Failure to do so will result in removal from the program. Additionally, any change in background check status that would affect the student’s clearance under either MCCCCD’s or a clinical agency’s standards will result in removal from a program.

Additional Clinical Agency Background Check

Some clinical agencies require that students assigned to their sites submit to a criminal background check covering other offenses, as well as to a drug screening. Students are required to pay for the additional agency clinical background check. A clinical agency that requires this additional background check may refuse to place a student due to information the clinical agency obtains in its background check even though that student possess a valid Level I Fingerprint Clearance Card and has obtained a “pass” status on the MCCCCD supplemental background check.

Some conditions that have resulted in students being denied placement at clinical agencies include pending criminal charges, outstanding warrants, unfinished terms of a sentence (such as unpaid fines), pattern of repeated types of arrests/convictions, and failure to disclose all past arrests/convictions when asked to do so on any background check application.

Inability to Place

MCCCCD has no obligation to make repeated attempts to place a student when the reason for MCCCCD’s inability to place the student is due to background check issues. Since clinical agency assignments are mandatory requirements for completion of a program, a student’s inability to complete required clinical experience due to his or her background check issues will result in removal from the program.

Changes to Admission or Background Check Requirements

MCCCCD may change its program admission requirements or background check requirements without notice at any time.

No Guarantee of Receipt of Licensure/Certificate

Many of the nursing and allied health programs prepare graduates for application for State or National certificates or licenses. In some professions, such licensure and certification is required prior to employment or practice in the profession. Graduation from a nursing and allied health program does not guarantee the receipt of a license or certificate to practice in the field of study.

AMENDED by Direct Approval from the Chancellor, June 1, 2017

*****END OF ALLIED HEALTH SECTION*****

4.18 Consensual Relationships

1. General

The existing Governing Board Policy on Hiring of Relatives prohibits employees from being involved in any employment or key decision that involves a relative. This would include work performance, job assignments, or pay related matters. In that such relationships can create a conflict with the interests of the Maricopa Community Colleges, and the increased potential for nepotism and favoritism, the same principles also apply in the case of consensual amorous, romantic and/or sexual relationships that occur between employees or between employees and students.

In the work and academic environment, such a relationship that might be appropriate in other circumstances is inappropriate if one of the individuals in the relationship has a professional responsibility toward, or is in a position of authority with respect to, the other, such as in the context of supervision, instruction, coaching, counseling or advisement. An element of power is present in such a context and it is incumbent upon those with authority not to abuse that power. In addition, consensual relationships may yield to third parties the appearance that unfair bias or favoritism towards the student or supervisee is taking place.

A. Definitions

- i. Consensual relationships are defined as romantic, amorous and/or sexual relationships between consenting employees or between employees and adult (18 years or older) college students currently enrolled at one of the community colleges.
- ii. An employee is any individual who is employed by the Maricopa County Community College District (MCCCD). An employee includes an individual who is subject to an established employee job group policy manual, whether regular, full-time board approved, at-will, part-time, and/or temporary. An employee also includes a contract worker (special services employment, request for personnel services) working or serving as an agent or designee on behalf of the MCCCD.
- iii. A student is considered to be any person currently enrolled in a credit or non-credit class at one of the colleges or centers within the Maricopa County Community College District.
- iv. A vendor is someone who sells or can sell products or services to the Maricopa County Community College District.
- v. A recent consensual relationship is considered to be one that has taken place within the past 24 months.

B. Prohibited Conduct

- i. An employee shall not maintain, engage in or be involved in a consensual relationship with another employee who is subject to that individual's supervision or with a student that is currently enrolled in the individual's class, or a student whom the individual otherwise instructs, coaches, counsels or advises, or with a vendor if the employee manages that contract or otherwise exerts influence over the contract.
- ii. The Governing Board recognizes that the personal life of its employees is not a concern of the institution, and therefore, this regulation does not seek to prohibit romantic relationships that exist between parties where the context of power-authority between employees or between employees and students is not present; and provided that the relationship does not affect the employee's effectiveness in fulfilling his or her professional obligation. For these instances, appropriate measures should still be taken in order to avoid conflicts of interest from occurring. For relationships that may exist prior to the time that either a student or employee is placed in a situation of instruction or supervision that is considered to be a conflict of interest, the employee(s) involved shall disclose and take immediate measures to avoid the conflict or appearance of conflict.

2. Procedures for Disclosure

Employees should first avoid allowing an inappropriate consensual, amorous or sexual relationship to develop with a supervisee or student.

- A. Where the employee is already in or has had a recent consensual relationship with a supervisee, the following procedures shall be followed:
 - i. Immediate disclosure by the employee of the relationship to their supervisor and to the appropriate Vice President or Vice Chancellor in order to ensure that any conflicts of interest have been adequately addressed.

- ii. The respective administrator responsible for the department or division shall place the subordinate under alternate supervision when a supervisor under his/her direction has or has had a recent consensual relationship with the employee.
 - iii. The supervisor shall recuse himself or herself from any discussions or involvement with decisions related to evaluations, promotion, hiring, determination of salary, or continuation of contract or employment.
 - iv. The respective Vice President or Vice Chancellor shall prepare and retain a report that specifies the appropriate alternate arrangements that have been made to eliminate the conflict of interest. The EEO/AA Office shall be provided a copy of the report along with the employees involved in the relationship.
- B. Where the employee is already in or has had a recent consensual relationship with a student prior to enrollment in his or her class, the following procedures shall be followed:
- i. The faculty member shall counsel and advise the student not to enroll in his or her course.
 - ii. The Consensual Relationships Policy will be made available to students via the student handbook and other appropriate communications vehicles.
 - iii. If it is not possible for a student to enroll in another course, section, or course and section at another college due to a requirement for completion of a degree or certificate and no other academic option is available, disclosure of the relationship will be made to the appropriate Department Chair, Dean and Vice President of Academic Affairs or Vice President for Student Affairs as appropriate for review. The Vice President will refer the matter to the Vice Chancellor for Academic and Student Affairs for consideration. The Chancellor or his/her designee may allow a student to enroll in the class only upon a showing by the student that the enrollment is necessary to avoid an extreme hardship, and upon a showing by the college President or designee that the academic integrity of the student's enrollment in the class will nevertheless be maintained.
3. Persons who are married, or were married, are included within the definition of persons that have or who have had a consensual amorous relationship. Disclosure in this instance may be made via the Maricopa Disclosure process [The Annual Acknowledgement and Disclosures form may be found in the [Employee Learn Center](#). Employee credentials are needed to enter secure site].
4. An employee who fails to follow the requirements established in this policy and who does not withdraw from participation in activities or decisions that may reward or penalize a supervisee or student with whom the employee has or has had a recent consensual amorous relationship, will be considered in violation of policy and will be addressed in accordance with established processes in job group policy manuals.

LANGUAGE ADOPTED BY DIRECT CHANCELLOR APPROVAL

2.8.3 Technology Accessibility

The Maricopa Community College District is committed to ensuring equal access to information, programs, services and activities through its technologies, Web pages, and resources both in the academic and work environments. This regulation establishes that Electronic and Information Technology (EIT) that are used to conduct the business of the Maricopa Community Colleges shall adhere to established accessibility standards and guidelines.

ADOPTED by Direct Approval from the Chancellor, April 1, 2015