



# PRODUCTION TECHNOLOGY

*Associate in Applied Science Degree in Production Technology  
Certificate of Completion in Production Technology: CNC Technology  
National Institute for Metalworking Skills (NIMS) Credentialing*

MORE INFORMATION: 602-286-8653

[WWW.GATEWAYCC.EDU/PRODUCTION-TECHNOLOGY](http://WWW.GATEWAYCC.EDU/PRODUCTION-TECHNOLOGY)



**GATEWAY  
COMMUNITY COLLEGE**  
A MARICOPA COMMUNITY COLLEGE

108 N. 40<sup>th</sup> Street – Phoenix, AZ 85034



**MARICOPA**  
COMMUNITY COLLEGES

## Welcome to the Production Technology Program at GateWay Community College

If you have any questions about the enclosed program material, please feel free to contact any of the following program contacts:

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*Maricopa County Community College District (MCCCD) is an EEO/AA institution and an equal opportunity employer of protected veterans and individuals with disabilities. A lack of English language skills will not be a barrier to admission and participation in the career and technical education programs of the college.*

*The Maricopa Community Colleges do not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities. For Title IX/504 concerns, call the following number to reach the appointed coordinator: (480) 731-8499. For additional information, as well as a listing of all coordinators within the Maricopa College system, <http://www.maricopa.edu/non-discrimination>.*

*\* The information provided in this Guide is subject to change. Revised 06/18/2018.*

## REGISTRATION CHECKLIST

<b>1</b>	<p><b>Submit 'Student Information Form'</b></p> <p><a href="https://admissions.maricopa.edu/">https://admissions.maricopa.edu/</a></p>	Enrollment Services IE 1214	(602) 286-8200
<b>2</b>	<p><b>Verify in-state residency</b></p> <p><a href="https://my.maricopa.edu/services/admissions-records-registration/proof-identity-id-authentication">https://my.maricopa.edu/services/admissions-records-registration/proof-identity-id-authentication</a></p>	Enrollment Services IE 1214	(602) 286-8200
<b>3</b>	<p><b>Send Official Transcript and/or High School Transcripts to Enrollment Services</b></p> <p>GateWay Community College Attn: Admissions and Records 108 North 40th Street Phoenix, AZ 85034</p>	Enrollment Services IE 1214	(602) 286-8200
<b>4</b>	<p><b>Take Course Placement Test (if applicable)</b></p> <p>Some courses and programs require test scores prior to enrollment.</p> <p>No fee required. BRING PICTURE ID. Call for times.</p>	Testing Center IE 1252	(602) 286-8160
<b>5</b>	<p><b>Apply for Financial Aid and Scholarships, if interested</b></p> <p><a href="http://www.gatewaycc.edu/Pay/FinancialAid/Apply.aspx">http://www.gatewaycc.edu/Pay/FinancialAid/Apply.aspx</a> <a href="http://www.fafsa.ed.gov/index.htm">http://www.fafsa.ed.gov/index.htm</a></p>	Enrollment Services IE 1214	(855) 622-2332
<b>6</b>	<p><b>Meet with an Industrial Technology Program Advisor</b></p> <p>Explore your program options, obtain registration advisement and setup a program of study plan.</p>	Enrollment Services IE 1214	(602) 286-8174
<b>7</b>	<p><b>Register for Courses</b></p> <p>Schedule Available at <a href="http://classes.sis.maricopa.edu/">http://classes.sis.maricopa.edu/</a> Enroll online at <a href="https://my.maricopa.edu">https://my.maricopa.edu</a></p>	Enrollment Services IE 1214	(602) 286-8200
<b>8</b>	<p><b>Pay Tuition and Fees</b></p> <p>Payment Plans and Payment Extensions Available. Ask for details.</p>	Enrollment Services IE 1214	(602) 286-8200
<b>9</b>	<p><b>Obtain Student ID, Optional</b></p> <p>Enrollment Services — BRING PICTURE ID</p>	Enrollment Services IE 1214	(602) 286-8141
<b>10</b>	<p><b>Obtain Parking Decal, Required</b></p> <p>Required if parking a vehicle on campus.</p>	Enrollment Services IE 1214	(602) 286-8200
<b>11</b>	<p><b>Purchase Books</b></p> <p>Bookstore or online at <a href="https://www.bkstr.com/gatewayccstore/home">https://www.bkstr.com/gatewayccstore/home</a></p>	Main Building, Bookstore MA 1200	(602) 286-8400
<b>12</b>	<p><b>Attend a Program Orientation Session</b></p> <p>A week before the start of the semester.</p>	Room location varies each semester.	(602) 286-8613

## Career Description

Production Technicians are employed in various engineering, manufacturing, and quality disciplines; in a variety of manufacturing industries to operate machinery that develop manufactured parts. Additional responsibilities may include the management of production quality and making recommendations for improved processes. Technicians are skilled at reading and creating technical instructions and are able to apply advanced technology in product development, machining and inspection processes.



## How to Get Started

GateWay Community College offers an Associate of Applied Science Degree in Production Technology which provides an emphasis in CNC-Computer Aided Design/Computer Aided Manufacturing Programming. A Certificate of Completion in Production Technology: CNC provides training for the programming, operation and maintenance of Computer Numerical Control (CNC) machines. All programs include hands-on practical training.

When you complete either the associate degree and/or certificate program, you will be prepared to take industry-certified exams offered by the National Institute for Metalworking Skills and HAAS Training Center.

## Employment Outlook

In Arizona, Production Technician positions are expected to increase by 2018. For the latest in employment trends and salaries, visit <https://www.onetonline.org/>

## Program Cost

Tuition and fees are set by the Maricopa Community College District Governing Board. Tuition is based on the 2018-2019 tuition rate of \$85 per credit hour (for in-county students). Tuition and fees are subject to change. Additional fees may apply. Financial Aid and Child Care are available to those who qualify.

## Accreditation

GateWay Community College is a Maricopa Community College, accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools (30 North LaSalle Street, Suite 2400, Chicago, IL. 60602-2504. Phone (800) 621-7440.

## Certificate of Completion (CCL) in CNC Technology: Major Code: 5440

**Description:** The Certificate of Completion (CCL) in Production Technology: CNC Technology program is designed for students to obtain the skills required to be considered as a Computer Numerical Control (CNC) technician in a manufacturing environment. Students develop skills with a specialization emphasis in Computer Numerical Control (CNC), Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) Programming Technician.

**Admission Criteria:** Math assessment score on District placement exam placing students into MAT090 or MAT091 or MAT092 or higher, or permission of Department or Division.

**Program Prerequisites: None**

Course Pre-Fix	Course Name	Credits	Advisor Notes
<b>CNC Technology Required Courses</b>			
MET109	Machine Trades Print Reading or Satisfactory completion of Departmental credit by examination	3	
MET112	Inspection Techniques	3	
MET113	Applied Geometric Dimensioning and Tolerance	3	
MET231	Manufacturing Processes	3	
GTC/MET206	CNC Programming	3	
MET207	CNC Mill: Operator Training I	3	
MET208	CNC Lathe: Operator Training I	3	
MET215	Advance CNC Operation	3	
MET 220 or MET 236 AD	Fundamentals of Coordinate Measuring Machines (CMM) or CAD/CAM Computer Numerical Control (CNC) Programming: MasterCam	3 - 6	
<b>Total Required Credits for Certificate of Completion</b>		<b>27 - 30</b>	

The official curriculum outline for this program is located on the [Maricopa Community Colleges Curriculum & Transfer Articulation](https://www.maricopa.edu/curriculum-transfer-articulation/) site at:

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/freeForm?id=93050>

**To receive this certification and/or degree, students must earn a grade 'C' or better in all courses within the program.**

Note: (+) Indicates a prerequisite and/or co requisite is required

## Associate in Applied Science (AAS) in Production Technology: Major Code: 3255

Course Pre-Fix	Course Name	Credits	Advisor Notes
<b>Production Technology Required Courses</b>			
MET109	Machine Trades Print Reading or Satisfactory completion of departmental credit by	3	
MET112	Inspection Techniques	3	
MET113	Applied Geometric Dimensioning and Tolerancing	3	
MET231	Manufacturing Processes	3	
GTC/MET206	CNC Programming	3	
MET207	CNC Mill: Operator Training I	3	
MET208	CNC Lathe: Operator Training I	3	
MET215	Advance CNC Operation	3	
MET220	Fundamentals of Coordinate Measuring Machines (CMM)	3	
MET236AD	CAD/CAM Programming for CNC: MasterCam	3	
MET246AD	Advanced CAD/CAM for CNC: MasterCam	3	
MET266AD	Solids CAD/CAM Programming: MasterCam 3	3	
MET276	MasterCam Certified Programmer Mill Level I: Test	1	
MET286AE	Solid Design I: Part Modeling: SolidWorks	3	
MET Restrictive Electives	MET119 Workplace Quality Systems MET224 Applied Statistical Process Control Methods MET254 Lean and Six Sigma Applied Concepts MET284 Advanced Quality Process	0 - 12	
<b>Associate in Applied Science Required General Education Courses</b>			
ENG101+	First-Year Composition	3	
ENG102+	First-Year Composition	3	
COM Class	COM 100 or COM 110 or COM 230	3	
CRE101	Critical Reading or Equivalent by Assessment	3	
MAT Class	Intermediate Algebra - MAT 120 or MAT 121 or MAT 122	3 - 5	
	Humanities/Fine Arts <i>(course must be on the approved list of courses to meet the AAS degree in General Education Requirements and must meet Cultural, Global and Historical)</i>	3	
	Social/Behavioral Sciences <i>(course must be on the approved list of courses to meet the AAS degree in General Education Requirements)</i>	3	
	Natural Sciences <i>Any approved general education course in the Natural Sciences</i>	4	
<b>Total Required Credits for Associate in Applied Science</b>		<b>61-67</b>	

The official curriculum outline for this program is located on the [Maricopa Community Colleges Curriculum & Transfer Articulation](https://www.maricopa.edu/curriculum-transfer-articulation/) site at:

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/freeForm3?id=93043>

**To receive this certification and/or degree, students must earn a grade 'C' or better in all courses within the program.**

Note: (+) Indicates a prerequisite and/or co requisite is required

**Program of Study/Suggested Course Sequence**

**FALL/Spring START: Evening Classes**

<b>1st Semester, Fall/Spring</b>				
<b>Course</b>	<b>Credit</b>	<b>Tuition</b>	<b>Course Fees</b>	<b>Book</b>
MET109	3	\$255	-	Yes
MET112	3	\$255	\$100	Yes
MET113	3	\$255	\$100	Yes
MET231	3	\$255	\$100	Yes
General Education	<i>Required general education core classes can be taken at any other MCCCD Colleges at your convenience (summer, online and Saturday classes are available)</i>			
<b>2nd Semester, Fall/Spring</b>				
<b>Course</b>	<b>Credit</b>	<b>Tuition</b>	<b>Course Fees</b>	<b>Book</b>
MET206	3	\$255	\$100	Yes
MET207	3	\$255	\$100	No
MET208	3	\$255	\$100	No
MET215	3	\$255	\$100	No
MET 220	3	\$255	\$100	No
General Education	<i>Required general education core classes can be taken at any other MCCCD Colleges at your</i>			
<b>3rd Semester, Fall/Spring</b>				
<b>Course</b>	<b>Credit</b>	<b>Tuition</b>	<b>Course Fees</b>	<b>Book</b>
MET236AD	3	\$255	\$100	Yes
MET246AD	3	\$255	\$100	Yes
General Education	<i>Required general education core classes can be taken at any other MCCCD Colleges at your</i>			
<b>4th Semester, Fall/Spring</b>				
<b>Course</b>	<b>Credit</b>	<b>Tuition</b>	<b>Course Fees</b>	<b>Book</b>
MET286AE	3	\$255	\$100	Yes
MET266AD	3	\$255	\$100	Yes
MET276	1	\$85	\$100	
General Education	<i>Required general education core classes can be taken at any other MCCCD Colleges at your convenience (summer, online and Saturday classes are available)</i>			

## Production Technology Degree and Certificate Cost Estimates

Program	Tuition	Course Fees	Total
Associate of Applied Science in Production	\$5,695	\$1,300	\$6,995
Certificate of Completion in CNC Technology	\$2,550	\$800	\$3,350

*Please note that these are only estimates and do not include books. These estimates may change based on increases to tuition, course fees and book costs. Estimates are based on the 2018-2019 tuition rates for in-county students. Additional fees may apply.*

## COLLEGE CONTACT INFORMATION

Admissions, Registration and Records.....	(602) 286-8200
Adult Re-Entry.....	(602) 286-8900
Apprenticeship Programs.....	(602) 286-8681
Assessment/Testing Center.....	(602) 286-8160
Bookstore.....	(602) 286-8400
Cafeteria.....	(602) 286-8308
Career and Employment Services Center.....	(602) 286-8500
College Safety.....	(602) 286-8911
Cashier's Office.....	(602) 286-8277
Cashier's TIP Hotline.....	(602) 286-8286
Children's Learning Center.....	(602) 286-8130
College Information.....	(602) 286-8000
Counseling.....	(602) 286-8900
Disability Services.....	(602) 286-8888
Financial Aid.....	(602) 286-8300
Institute for Computer Training (ICT) Lab.....	(602) 286-8568
Learning Center.....	(602) 286-8800
Library.....	(602) 286-8454
Phone Registration.....	(602) 286-8100
Student Activities/Clubs.....	(602) 286-8700
Veterans Services.....	(602) 286-8076