APPLIED INDUSTRIAL TECHNOLOGY (MANUFACTURING TECHNOLOGY), ASSOCIATE OF APPLIED SCIENCE

Students must be currently working in a registered apprenticeship program in conjunction with the U.S. Department of Labor, Bureau of Apprenticeship and Training. The Apprenticeship Program prepares the student to work as a skilled Machinist, as well as earn an Associate of Applied Science Degree in Applied Industrial Technology. A four-year apprenticeship emphasizes the skill set required to be a highly skilled craftsman. Machinists or Tool Makers are involved in the manufacture of precision machined metal components used by many industries including the aerospace, automotive, medical, and energy fields. Many of the machine tools are run by computer numerical control - CNC. The Machinist of today must possess a wide skill set of mathematical knowledge, technical disciplines, and the ability to work independently and in team environments. Working from blueprints or drawings, machinists use a variety of specialized metal cutting machine tools to produce precision parts.

Program contact: Learn more

This degree program contains one or more embedded certificates which will be automatically awarded when the certificate requirements are completed. If you do not want to receive the embedded certificate(s), please notify the Office of the Registrar at RegistrarOffice@tri-c.edu.

Learn more about how certificate credits apply to the related degree.

Program Admission Requirements

- High School Diploma/GED
- Applicants must be sponsored by a participating employer

Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

1. Listen, ask questions and collaborate with co-workers and supervisor during the manufacturing process to produce a high quality product.
2. Be reliable, conscientious, respectful and committed to the organization's mission.
3. Apply principles and practice of safety while performing daily tasks.
4. Recognize, analyze and apply knowledge, resources and creativity to resolve problems as they arise.
5. Apply advanced concepts of shop math, blueprint reading, inspection and knowledge of machining and manufacturing principles to produce a quality product that meets customer specification in a safe and efficient manner.

Suggested Semester Sequence

First Semester		Credit Hours
ATMT-1100	Manufacturing Skills I	3
ATMT-1110	Manufacturing Skills II	2
ATMT-1200	Machine Tool Theory	4
ISET-1310	Mechanical Power Transmission	2
MATH-1xxx	1000-level MATH course or higher	3
Select one of the following:		3
ENG-1010	College Composition I [1]	
ENG-101H	Honors College Composition I	
	Credit Hours	17
Second Semester		
ATMT-1300	Manufacturing Procedures	2
ATMT-1500	Manufacturing Tech Skills I	4
ATMT-1600	Introduction to CAD	2
BADM-1020	Introduction to Business	3
Select one of the following:		3
IT-1090	Computer Applications	
IT-109H	Honors Computer Applications	
	Credit Hours	14
Third Semester		
ATMT-2300	Advanced Manufacturing Procedures	2
ATMT-2500	Manufacturing Technology Skills II	4
ATMT-2600	CNC Programming/Operations	2
Social & Behavioral Sciences/Natural & Physical Sciences requirement		3
BADM-1122	Principles of Management and Organizational Behavior	3
	Credit Hours	14
Fourth Semester		
ATMT-2620	CAM Principles	2
ATMT-2700	Manufacturing Technology Skills III	4
ATMT-2990	Manufacturing Operation Principles	3
COMM-1000	Fundamentals of Interpersonal Communication	3
Arts & Humanities requirement		3
	Credit Hours	15
	Total Credit Hours	60

[1] Online course offerings are available to meet these requirements.