

Manufacturing Technology



Engineering • Manufacturing • Industrial Technology

The associate of applied science degree with specialization in manufacturing technology is designed to prepare students for a career in the intermediate levels of the production, operation and control phases of industry. Included in the curriculum is the use of computer aided drafting and computer numerical control of machine tools. Emphasis is placed on the use of industrial materials and methods of machine operation. Students will be trained for employment in such industrial areas as milling, lathe, wire EDM, machine set-up and operation, CAD/CAM operation, quality control, and CNC machine tool programming and operation. Graduates of this program will be prepared for entry-level employment in the following areas:

- Basic machinist
- Basic mechanical drafter
- Engineering technician
- Estimation and specifications technician
- Industrial product salesperson
- CNC operator
- CAD/CAM technician
- Machinist
- Production control technician
- Quality control technician
- Research and development technician
- Sales engineer

In addition to completion of the required general education courses, students desiring the program designation on their transcript must complete the required core and specialized courses.

Required General Education Courses	Credits
ENGL 101 (Written and Oral Communication) or ENGL 151 (English Composition I)	3
¹ MATH	6
POLSC 151 (Introduction to Political Science)	3
² Social Science/Humanities Elective.....	3
PHY 101, 151, or CHEM 150 or 151	4

Required Core Courses 45

1st Semester	
MATL 101 (Industrial Materials)	3
† MECH 103 (Basic Machine Tools)	4
³ † MDTC 160 (Mechanical Drafting and CAD I)	4
† ELEC 125 (Fundamentals of Electricity)	3
2nd Semester	
† MECH 104 (Machine Tool Operations)	4
⁴ MECH 201 (Introduction to CAD/CAM)	3
3rd Semester	
MECH 105 (Advanced Machine Tools)	4
MECH 111 (Introduction to Fluid Power)	3
MECH 102 (Manufacturing Processes)	4
MDTC 226 (Geometric Dimensioning and Tolerancing)	3
4th Semester	
† MECH 131 (Introduction to Automated Manufacturing)	3
METC 220 (Statics & Strength of Materials)	4
QSTC 111 (Quality Management)	3

Total Degree Requirements 64

Certificate Program: Manufacturing Technology

In addition to the two-year associate degree program, Monroe County Community College offers a certificate program in manufacturing technology. We recognize that many employers place value on a certificate which authenticates specialized educational preparation. The program concentrates upon basic core courses with skill development and job upgrading being the primary objectives. All courses taken in the certificate program are applicable toward the associate of applied science degree.

† MECH 103 (Basic Machine Tools)	4
† MECH 104 (Machine Tool Operations)	4
MECH 105 (Advanced Machine Tools)	4
MECH 102 (Manufacturing Processes)	4
† MDTC 160 (Mechanical Drafting and CAD I)	4
MATH (Mathematics)	4
MATL 101 (Industrial Materials)	3
Total Certificate Requirements	27

† Tech Prep course. See page 14.

¹ See page 37 for specific Industrial Technology Division mathematics requirements for the associate of applied science degree.

² See the social science/humanities alternatives listed on page 37.

³ Meets computer skills requirement.

⁴ Students may take this course during their first or second Spring Semester.