MERCER COUNTY COMMUNITY COLLEGE

2023-2024 Academic Year

Advanced Manufacturing Technology

Certificate of Proficiency

B-STEM Division
Business, Science, Technology, Engineering and Math
609.570.3482 admiss@mccc.edu

The **Advanced Manufacturing Technology** program is designed to prepare students for the modern manufacturing environment. This certificate of proficiency is attractive to employers who implement team-oriented design, production, quality, and maintenance systems within the manufacturing environment.

American manufacturers are becoming increasingly dependent upon the use of high-tech equipment that involves multiple, integrated systems. It is crucial that these companies be able to recruit and employ individuals who know how to operate, troubleshoot, and maintain it.

The certificate program prepares students for apprentice/entry-level positions in shops and manufacturing facilities not only in the local area but almost anywhere in the country. Typical tasks include setting up and operating equipment such as engine or turret lathes, milling machines, and power presses. More advanced tasks may involve operating computer-controlled manufacturing equipment (CNC) as well as programmable logic controllers (PLCs) or robots for assembly lines.

Admission to the program requires a high school diploma or its equivalent with one year of algebra or applied mathematics.

PROGRAM OUTCOMES

- Read prints and schematics;
- Use instruments such as micrometers, calipers, and scales;
- Set up and operate a milling machine;
- Set up and operate a lathe;
- Populate and repair printed circuit boards;
- Maintain a safe and organized work space;
- Make certain mathematical calculations related to shop work;
- Succeed in future courses, such as those involving PLC and CNC systems.

SEE ALSO:

Advanced Manufacturing Technology degree program

CERTIFICATE CURRICULUM

2023-2024 Academic Year

MANUF.TECH.AMT.CERT
CIP 143601

Credit-bearing certificate programs can serve as gateways to earning an associate degree. Students are encouraged to consult the program coordinator, an academic advisor or Success Coach to explore such opportunities.

Code	Course (lecture/lab hours)	Credits
AMT 101	Machine Shop Techniques I (2/3)	3
DRA 190	Introduction to Computer-Aided Drafting (1/2)	2
ENG 101	English Composition I (3/0)	3
MAT 115	Algebra and Trigonometry I (3/0)	3
— —	Science OR Technology general education elective	3
AMT 102	Machine Shop Analysis Methods (3/0)	3
AMT 103	Blueprint Reading Basics (2/0)	2
AMT 110	Machine Shop Techniques II (2/3)	3
AMT 231	Introduction to Computer Numerical Controlled (CNC) Machines (2/3)	3
AMT 232	Advanced Computer Numerical Controlled (CNC) Machines (2/3)	3
AMT 290	Advanced Manufacturing Technology Internship	2
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