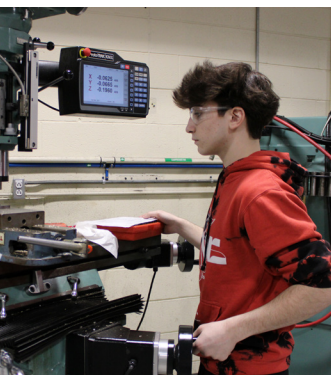
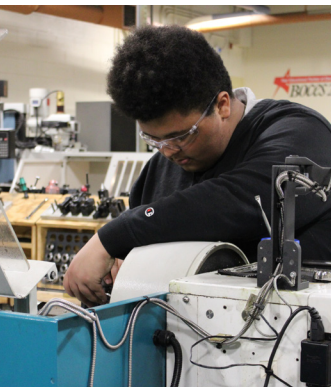
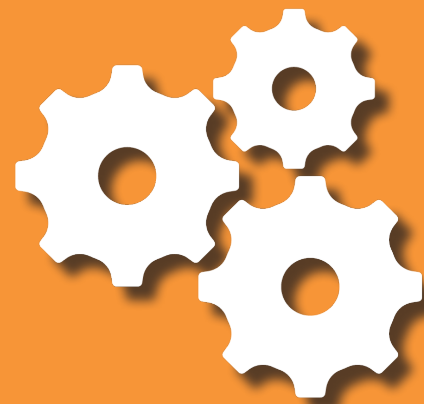


ADVANCED MANUFACTURING

Mastering precision in a world of innovation

Develop career-ready skills in Advanced Manufacturing through a rigorous, two-year progression of immersive, hands-on training. Students will build a strong foundation in machining processes, CNC production, CAD/CAM software and print reading. This course explores material properties, quality control, workflow improvement and adaptability. Students are expected to use problem-solving skills, technical reasoning and applied mathematics daily. Upon program completion, students will have the technical expertise needed to be successful in a high-demand manufacturing career.



What You Can LEARN

Units of Study

- Part Orientation
- OSHA
- Shop Safety
- Calibration
- Job Planning and Strategies
- Applied Mathematics with Trigonometry and Geometry
- Manual Machining Mill and Lathe
- Computer Numerical Control Mill and Lathe (CNC)
- Computer Aided Manufacturing (CAM)
- Computer Aided Design (CAD)
- Material Properties & Processes
- Proper Tool Usage
- Technical Print Reading with Geometric Dimensioning and Tolerancing (GD&T)
- 3-D Printing and Prototyping



What You Can EARN

Available High School Academic Credits

At district request, students may earn:

- English

Licensing/Industry-Based Certifications

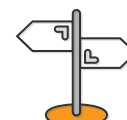
Students have opportunities to earn:

- OSHA 10 Construction

Work-Based Learning

Organizations that support this program:

- School-Based Learning
- Educational Tours
- Guest Speakers
- Career Fair
- Co-op
- Job Shadow



Where You Can GO

Career Opportunities

Minimal Requirement Beyond CTE

- CNC Operator
- Mill Operator
- Lathe Operator

Additional Education and/or Experience

- Programmer
- Engineer
- Manufacturing Manager

Postsecondary Pathways

Dual Enrollment

- Monroe Community College
 - Machine Theory I (TAM101)
 - Mathematics for Machinists (TAM121)
 - Machine Shop Print Reading I (TAM131)
 - Machine Shop Laboratory (TAM141)

Articulation Agreements

- SUNY Canton
- Alfred State

Now You Can
KNOW

According to a recent survey, 92% of manufacturers report a moderate to severe shortage of skilled workers, making it a promising field for those interested in pursuing a career.



Monroe 2-Orleans BOCES Career and Technical Education

WEMOCO Career and Technical Education Center

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