

FABRICATION TECHNOLOGIES

Program Number: 10-457-1

Associate of Applied Science Degree

Campus: Fond du Lac

This program is eligible for financial aid (<http://www.morainepark.edu/financial-aid/>)

Note: We're redesigning the Fabrication Technologies program courses and updating technologies to fit the changing needs of local employers and industry.

Applications are being accepted for Fall 2022 for this program. Individuals interested in starting during the 2021-2022 school year have some courses still available. Contact recruitment@morainepark.edu for more details.

Whether you're looking to advance your current career in manufacturing, or want to hit the ground running after high school, Moraine Park's Fabrication Technologies associate degree prepares students for a precision-driven career making metal parts and components for a variety of household and industrial products.

About the Program

Are you a very detail-oriented person with the desire to work with your hands AND make a difference? Moraine Park's Fabrication Technologies degree gives students the knowledge and skills they need to increase productivity, innovation and competitiveness in the manufacturing industry.

Students gain fabricating skills in automated cutting, forming and welding processes that prepare them for obtaining the Precision Sheet Metal Certification (<https://www.fmamfg.org/training/certificates/>) from the Fabricators and Manufacturers Association.

What You'll Learn

Through our gas metal arc welding (GMAW), gas tungsten arc welding (GTAW) and fabrication courses, students learn how to set up and operate metal fabrication, industrial welding and cutting equipment, interpret industrial prints, apply mathematical reasoning, and use various fabrication processes.

The coursework also includes topics in computer aided design (CAD), computer numerical control (CNC), advanced manufacturing planning and production, lean manufacturing practices, and quality applications used in today's advanced manufacturing companies.

Transfer Opportunities

Earn credits at MPTC and transfer to a four-year college to earn your bachelor's degree.

Visit the Transfer Opportunities (<https://www.morainepark.edu/academics/transfer-information/transfer-to-a-four-year-college/>) page for more information on credit transfer agreements between Moraine Park and four-year colleges, both public and private.

Additional Information

Student project may incur additional fees.

Admission Process

Standard Admissions (<http://www.morainepark.edu/admissions/new-student/how-to-apply-for-admissions/>) steps details

Credit for Prior Learning

Earn college credit outside the classroom through Moraine Park's Credit for Prior Learning (CPL) opportunities. Credit opportunities are available for:

- Previous college coursework from prior institutions
- Military training and experience
- Passing of MPTC or national exams
- Skills or knowledge developed on the job or through other life experiences

Visit MPTC's Credit for Prior Learning (<https://www.morainepark.edu/academics/transfer-information/credit-for-prior-learning/>) page for more information.

Approximate Costs

- \$141.00 per credit (resident)
- \$211.50 per credit (out-of-state resident)
- Online students are not charged out-of-state fees.
- Please refer to the MPTC Student Handbook (<http://www.morainepark.edu/studenthandbook/>) for additional enrollment fee information.

Financial Aid

Financial Aid is provided to aid eligible associate degree and technical diploma programs with 28 credits or more. Processing can take 6-8 weeks after a student's completed Free Application for Federal Student Aid (FAFSA (<https://studentaid.gov/h/apply-for-aid/fafsa/>)) is received. Visit the Financial Aid (<https://www.morainepark.edu/pay-for-college/financial-aid/>) page to learn more.

Course Requirements

Course	Title	Credits
Semester 1		
103-159	Computer Literacy - Microsoft Office	1
442-109	Welding for Fabricators	4
457-145	Fabrication Techniques	4
623-110	Technical Print Reading	2
804-118	Intermediate Algebra With Applications	4
890-101	College 101	2
Credits		17
Semester 2		
457-146	Advanced Fabrication Techniques	4
457-147	Metallurgy	2
457-148	Metal Cutting and Forming Processes	3
623-162	Manufacturing Processes	3
801-136	English Composition 1	3
804-195	College Algebra with Applications	3
Credits		18
Semester 3		
457-110	Integrated Manufacturing Planning - Fabrication Technologies	2
617-114	CAD 3-D SolidWorks	3
623-166	Lean Process and Quality Planning	3

623-196	Geometric Dimensioning and Tolerancing	3
806-143	College Physics 1	3
Communication Course (https://catalog.morainepark.edu/academic-programming/general-education/communications/)		3
Credits		17
Semester 4		
457-111	Integrated Manufacturing Production - Fabrication Technologies	2
620-151	Fanuc Robotics and Vision Systems	3
628-122	Basic CNC Programming and Operation	3
Social Science Course (https://catalog.morainepark.edu/academic-programming/general-education/behavioral-social-science/)		3
Behavioral Science Course (https://catalog.morainepark.edu/academic-programming/general-education/behavioral-social-science/)		3
Credits		14
Total Credits		66

Program Outcomes

- Demonstrate industry recognized safety practices
- Form materials to detailed drawings
- Cut materials to detailed drawings
- Join materials to detailed drawings
- Layout components/assemblies
- Inspect product
- Program automated machines
- Use computer-aided drafting and manufacturing software
- Complete a project within a cross-functional team

Pathways

- Fabrication Technologies Associate Degree (p. 1)
 - Metal Fabrication Technical Diploma (<https://catalog.morainepark.edu/programs/metal-fabrication/>)
 - Manufacturing Fundamentals Certificate (<https://catalog.morainepark.edu/programs/manufacturing-fundamentals-certificate/>)

Earn a certificate, technical diploma and associate degree along this pathway. Start with some courses for entry-level employment, and continue with additional courses for higher wages and job advancement.

Career Opportunities

- Fabricator
- Press Brake Operator/Programmer
- Laser Operator/Programmer
- Robotic Welding Operator/Programmer
- Faster advancement opportunities on the salary scale and positions within the company, i.e., lead person, foreman, supervisor.

Statewide Median Salary for Recent Graduates

\$40,000