

QUALITY AND ADVANCED MANUFACTURING TECHNOLOGY

Program Number: 10-623-8

Associate of Applied Science Degree

Campus: Fond du Lac, some courses available at the West Bend campus
This program is eligible for financial aid (<http://www.morainepark.edu/financial-aid/>)

The Quality and Advanced Manufacturing Technology degree will prepare you to work with automated systems in order to improve efficiencies and quality in a manufacturing environment.

About the Program

Today's high-tech manufacturers are using Smart Technologies and Automation to revolutionize their processes and need a highly skilled workforce trained in manufacturing processes, quality planning, data collection, data analysis and the ability to integrate all of these functions.

What You'll Learn

The Quality and Advanced Manufacturing Technology program utilizes high-tech labs to expose you to the latest technologies used in manufacturing, preparing you to adapt to change in an ever-changing environment. Applications in problem solving, teamwork and automated manufacturing technologies are emphasized.

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.

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
623-110	Technical Print Reading	2
623-162	Manufacturing Processes	3
664-110	Introduction to Mechatronics	2
801-136	English Composition 1	3
804-195	College Algebra with Applications	3
890-101	College 101	2
Credits		16
Semester 2		
617-114	CAD 3-D SolidWorks	3
623-191	Basic Metrology	2
628-136	Statistical Process Control	3
664-100	Introduction to Industrial Control Systems	2
Communication Course (https://catalog.morainepark.edu/academic-programming/general-education/communications/)		3
Social Science Course (https://catalog.morainepark.edu/academic-programming/general-education/behavioral-social-science/)		3
Credits		16
Semester 3		
623-111	Integrated Manufacturing Planning - Manufacturing Technology	2
623-118 or 628-122	Gage Calibration and Testing or Basic CNC Programming and Operation	3
623-166	Lean Process and Quality Planning	3
623-196	Geometric Dimensioning and Tolerancing	3
664-105	Introduction to Industrial Robotics	2
806-143	College Physics 1	3
Credits		16
Semester 4		
623-106 or 628-132	Quality Tools or Advanced CNC Programming and Operation	3
623-112	Integrated Manufacturing Production - Manufacturing Technology	2
623-134 or 628-142	Basic CMM Programming and Operation or Computer-Aided Manufacturing	3
623-168 or 664-115	ISO 9001 and Auditing or Robotics and Vision Systems	2
664-120	Introduction to Industrial Internet of Things	2

Behavioral Science Course (https://catalog.morainepark.edu/academic-programming/general-education/behavioral-social-science/)	3
Credits	15
Total Credits	63

Program Outcomes

- Develop manufacturing processes for a product or process
- Solve manufacturing problems
- Apply lean manufacturing principles
- Develop a quality control plan
- Design a product or prototype
- Program automated machines
- Complete a project within a cross-functional team

Pathways

- Quality and Advanced Manufacturing Technology Associate Degree (p. 1)
 - Computer Numerical Control Certificate (<https://catalog.morainepark.edu/programs/computer-numerical-control-certificate/>)
 - Quality/Supervision Certificate (<https://catalog.morainepark.edu/programs/quality-supervision-certificate/>)

Earn certificates and an 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

- Continuous Improvement Technician
- Quality Assurance Technician
- Process Engineering Technician
- Manufacturing Engineering Technician
- CNC Programmer
- Robotics and Material-Handling Technician
- Industrial Engineering Technician

Statewide Median Salary for Recent Graduates

\$48,000