MORAINE PARK
TECHNICAL COLLEGE
1-800-472-4554 | TTY/VP. Use Relay/VRS

MECHANICAL DESIGN TECHNOLOGY

Program Number: 10-606-1
Associate of Applied Science Degree
Campus: Fond du Lac, most courses available at the West Bend campus. This program is eligible for financial aid (http://www.morainepark.edu/financial-aid/)

Combine your design skills, math knowledge, and mechanical aptitude, and turn it into a career with the Mechanical Design Technology program at Moraine Park.

About the Program

From designing products to preparation of models and drawings for all types of machines and manufacturing industries, mechanical designers assist engineers by developing designs for mechanical equipment using Computer Aided Design (CAD). The Mechanical Design Technology program prepares students for the field with hands-on CAD work and an in-depth look at project and product development.

What You'll Learn

Students in the Mechanical Design Technology courses learn about various materials used in design and manufacturing and practice by developing models and finalizing designs. Coursework also includes die, mold, jig and fixture designing. Students become skilled at analyzing parts drawings and troubleshooting mechanical engineering issues. Graduates are proficient in the latest CAD software and are knowledgeable about Lean manufacturing and green sustainable technologies.

Graduates find jobs with a variety of manufacturing industries including metal fabrication companies; industrial equipment manufacturers; paper equipment manufacturers; consumer product companies; recreational equipment firms; and tool, die, metal stamping and mold making companies.

Transfer Opportunities

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

Visit the Transfer to a Four-Year College (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

This program is also offered in a part-time evening format.

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

Tuition

Occupational

- $146.20 per credit (resident)
- $219.30 per credit (out-of-state resident)

Associate of Arts/Associate of Science

- $188.90 per credit (resident)
- $283.35 per credit (out-of-state resident)

Online students are not charged out-of-state fees.

Student Fees

- $4.50 minimum per course Material Fee
- $12.50 per-credit Supplemental Fee for Undergraduate courses
- $10 minimum per credit Online Course Fee (Fee suspended for 2023-2024)
- $4.50 per term mandatory Student Accident Insurance Fee

Please refer to Tuition & Fee Information (https://catalog.morainepark.edu/admissions-registration/tuition-fee-information/) for additional enrollment fee information.

Financial Aid

Financial Aid is available for associate degree and technical diploma programs (those that are 2 semesters in length and typically with 28 credits or more). Processing can take 4-5 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.

While attending Moraine Park during the 2023-24 school year, your estimated cost of attendance for one full year includes tuition of $4,375 (15 credits for fall and spring semester), fees of $338, food and housing of $4,052 (if living with parents, $9,614 if living on your own), books and supplies of $2,061, personal expenses of $2,245, and transportation of $2,007 for a total of $15,161. Your direct costs (those costs paid directly to the college) include tuition & fees. The indirect costs (costs not paid to the college) can vary from individual to individual and your own personal needs.

Course Requirements

Course	Title	Credits
Semester 1		
103-159	Computer Literacy - Microsoft Office	1
606-175	CAD 2-D, Introduction to AutoCAD	1
617-114	CAD 3-D SolidWorks	3
617-123	CAD 3-D, Advanced SolidWorks	3
623-162	Manufacturing Processes	3
804-195	College Algebra with Applications	3
890-101	College 101	2
	Credits	**16**
Semester 2		
606-116	Machine Elements	3
606-132	Materials of Industry	3
617-115	Jig and Fixture Design	3
801-136	English Composition 1	3
804-196	Trigonometry with Applications	3
Behavioral Science Course (https://catalog.morainepark.edu/academic-programming/general-education/behavioral-social-science/)		3
	Credits	**18**
Semester 3		
606-107	Component Design	4
606-112	Integrated Manufacturing Planning - Mechanical Design	2
606-128	Design Statics	3
623-196	Geometric Dimensioning and Tolerancing	3
Communication Course (https://catalog.morainepark.edu/academic-programming/general-education/communications/)		3
	Credits	**15**
Semester 4		
606-111	Integrated Manufacturing Production - Mechanical Design	2
606-125	Product Design	4
606-130	Strength of Materials	3
617-149	Tool Design	4
Social Science Course (https://catalog.morainepark.edu/academic-programming/general-education/behavioral-social-science/)		3
	Credits	**16**
	Total Credits	**65**

Program Outcomes

- Prepare detail and assembly drawings for documentation of mechanical components and products
- Create CAD geometry, parts and assemblies
- Design mechanical components and products
- Analyze mechanical engineering problems
- Select purchased parts

Career Opportunities

- Mechanical Designer
- Engineering Technician
- Design Technician
- Tool Designer
- Die Designer
- Mold Designer
- CAD Detailer

Statewide Median Salary for Recent Graduates

$51,164