

Mechanical Design Technology

PROGRAM CODE: 10-606-1



Associate Degree

**Location:** Downtown Milwaukee Campus**Start Date:** August**Admission Requirement:** High school diploma or equivalent**Academic Preparedness Requirement:** One year of high school-level algebra or equivalent**Financial Aid Eligible:** Yes. Use code 003866 at fafsa.gov.

Program Description

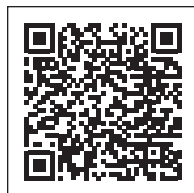
Get involved in the engineering design process — design and analyze mechanical components and assemblies. Create 3D solid models and 2D detailed drawings for parts or assemblies of mechanical and electromechanical systems using the latest computer-aided design/drafting (CADD) systems.

Career Outlook

The employment outlook is favorable for mechanical drafters/designers having current training involving CADD systems.

Program Learning 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.

**Complete Program Details****QUESTIONS?** 414-297-6319 or stempathway@matc.edu

COURSES

CREDITS

| | | |
|-------------------|---|---|
| CIVIL-102 | Introduction to AutoCAD ^ | 2 |
| CIVIL-105 | Computer Applications ^ | 2 |
| MATH-115 | College Technical Mathematics 1 ‡ ^ | 5 |
| | (or) MATH-201 College Algebra (4 credits) ‡ | |
| MCDESG-102 | Technical Drafting 1 ‡ ^ | 3 |
| MCDESG-162 | Engineering Materials ^ | 2 |
| MATH-116 | College Technical Mathematics 2 ‡ | 4 |
| | (or) MATH-202 Trigonometry (3 credits) | |
| MCDESG-104 | Technical Drafting 2 With CAD ‡ ^ | 3 |
| MCDESG-114 | SolidWorks 1 ^ | 2 |
| MCDESG-160 | Statics ‡ | 3 |
| SOCSCI-197 | Contemporary American Society | 3 |
| | (or) Any 200-level SOCSCI or HIST course | |
| ENG-195 | Written Communication ‡ | 3 |
| | (or) ENG-201 English 1 ‡ | |
| MCDESG-106 | Advanced Engineering Graphics ‡ ^ | 3 |
| MCDESG-118 | Kinematics ‡ | 3 |
| MCDESG-124 | SolidWorks 2 ‡ ^ | 2 |
| MCDESG-130 | Strength of Materials ‡ | 3 |
| MCDESG-163 | Machining Processes ‡ ^ | 2 |
| ELECTIVES | (Two credits) | 2 |
| ENG-196 | Oral/Interpersonal Communication ‡ | 3 |
| | (or) Any 200-level ENG or SPEECH course | |
| MCDESG-112 | Tool Design ‡ | 3 |
| MCDESG-116 | Design Elements ‡ | 3 |
| MCDESG-125 | Design Problems ‡ | 3 |
| MCDESG-135 | PTC Creo (Pro/E) 1 | 2 |
| PSYCH-199 | Psychology of Human Relations | 3 |
| | (or) Any 200-level PSYCH course | |

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Mechanical and Computer Drafting technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at selfservice.matc.edu.