ENGINEERING TECHNOLOGY - AAS DEGREE

Overview

See Department website and program contacts here (https://www.mhcc.edu/education-options/degrees-certificates/engineering/engineering-technology/index/)

The **Engineering Technology (AAS) degree** is designed for students seeking careers in engineering support, manufacturing, construction, and technical design fields. The curriculum combines technical knowledge with practical skills to prepare students for entry-level positions working alongside engineers and skilled trades professionals.

Coursework includes topics such as **engineering technology, technical drawing, manufacturing processes, construction systems, and applied problem solving**. Students develop practical technical skills used to support engineering projects, oversee production and construction processes, and communicate between engineering and technical teams.

The Engineering Technology program is workforce-focused and prepares students for careers in engineering support, manufacturing, drafting, technical design, and related industries.

Students are encouraged to work with an advisor (https://www.mhcc.edu/student-resources/academic-advising/) to ensure appropriate course selection and program planning based on their educational background and career goals.

Refer to the tabs above for additional information about:

- **Education Plan** – provides a sample term-by-term sequence of courses
- **Career Info** – includes information on potential occupations, employment trends, and earnings

Program Learning Objectives

At the completion of this program, students should be able to:

- Demonstrate technical expertise in a minimum of three subject areas chosen from: engineering materials, applied mechanics, applied fluid sciences and fundamentals of electricity
- Use graphics software to enhance creativity and productivity in engineering design
- Calculate loads and determine stresses and displacements in elementary structural and mechanical systems
- Working in a team, apply technical expertise in creating a product from concept to working prototype
- Conduct standardized field and laboratory testing on concrete and soils
- Use both traditional and modern electronic surveying equipment
- Describe the ethical responsibilities of the engineering profession
- Describe sustainability in engineering and how it impacts products, business and communities

Education Plan

This sample Education Plan illustrates one possible course sequence. Students should consult an advisor (https://www.mhcc.edu/student-resources/academic-advising/) to create a personalized plan.

General education courses (such as math, writing, health, etc.) can be taken during any term, or before starting the program.

First Quarter		
Fall		**Credits**
ET120	Engineering Problem Solving	4
MEC110	Introduction to Manual Machine Tools	3
MTH095	Intermediate Algebra with Right Triangle Trigonometry	5
or 4 credit elective if math placement is above MTH095		
CIS120L	Computer Concepts Lab I	1
GE115	Engineering Graphics	3
	Credits	**16**
Second Quarter		
Winter		
ET221	Statics	4
ET116	Advanced Engineering Graphics	3
GE101	Engineering Orientation	4
MTH111Z	Precalculus I: Functions	4
	Credits	**15**
Third Quarter		
Spring		
ENGR248	Engineering Graphics: Solidworks	3
ET231	Basic Strengths of Materials	4
ET150	Plane Surveying	4
WR121Z	Composition I	4
	Credits	**15**
Fourth Quarter		
Fall		
ET222	Fluid Mechanics	3
ET227	Engineering Project Management	4
MEC131	AC/DC Electrical Systems	3
HPE295	Health and Fitness for Life	3
	Credits	**13**
Fifth Quarter		
Winter		
ET266	Concrete and Soil Technology	4
ET210	Sustainable Engineering	3
MEC141 or FT228	Pneumatics I or Introduction to Geographic Information Systems	3
WR227Z	Technical Writing	4
Human Relations course (https://catalog.mhcc.edu/degree-certificate-requirements/aas/#human)	HUM202 recommended	3
	Credits	**17**

Sixth Quarter		
Spring		
ET249 or FT221	Advanced Solidworks or Aerial Photo Interpretation, GPS and sUAS	3
ET250	Project Capstone	4
ET263	Structural Design	4
ET215	Additive Modeling with Artificial Intelligence (AI)	4
	Credits	**15**
	Total Credits	**91**

Awarding Requirements

The following requirement(s) must be fulfilled to be awarded the AAS in Engineering Technology degree:

- All program core courses must be completed within five (5) years of starting the program.

Career Information

Explore potential careers related to this program, including typical job roles, employment trends, and projected growth. This information can help you better understand how your education may align with future career opportunities.