

Mechanical Engineering Technology- Associate in Applied Science

For information, contact the Department of Engineering Technology at 513-758-1804. Offices are located in Hamilton - 207 Phelps Hall or Middletown - 205MJ Thesken Hall.

This department offers associate degree programs in electrical and computer engineering technology and mechanical engineering technology. They also provide bachelor completion programs with concentrations in Electrical and Computer Engineering Technology, Electro-Mechanical Technology, Mechanical Engineering Technology, and Robotics Engineering Technology.

Students are strongly encouraged to participate in engineering technology internships. Internship information is available through the Regional Office of Career Services and Professional Development: 513-227-3390, miamiregionalscareer@MiamiOH.edu.

Department Educational Objectives

We consider program educational objectives as the general characteristics our graduates demonstrate to the workplace, graduate school, the military, or their endeavors after they leave Miami. We typically measure these characteristics initially at graduation by asking graduates if they feel they have achieved these characteristics and then periodically thereafter through employer surveys, letters from graduates, advisory council, graduate school accomplishments, and surveys of graduates who have been out for a while. These characteristics should become most evident within the first few years after graduation.

The Engineering Technology Department's graduates are able to:

- apply math and physics principles to the solution of engineering technical problems.
- use applied skills to identify, evaluate, and solve complex technical problems.
- use engineering computer software to facilitate engineering problem solving.
- function effectively in team-oriented activities.
- demonstrate the knowledge of expected standards of ethical and professional conduct.
- verbally communicate ideas.
- prepare well-written technical reports.

In addition, our graduates will have the necessary fundamentals to pursue life-long learning.

This program emphasizes courses in computer-aided drafting (CAD), computer-aided engineering analysis and design, computer-aided manufacturing (CAM), computer numerical control programming (CNC), and engineering mechanics. Courses include laboratory experiences working with modern materials-testing equipment; microcomputer-based engineering analysis software; CAD/CAM hardware and software; microprocessor-controlled robots; and a variety of engineering support software. Students develop the ability to analyze, synthesize, and solve technical problems. This program is accredited by the Engineering Technology Accreditation Commission

of ABET (111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone, 410-347-7700, <http://www.abet.org/>).

Graduates work as CAD operators, CAD/CAM operators, CNC programmers, quality assurance technicians, laboratory test technicians, engineering assistants, and many other related paraprofessional positions. Graduates may also choose to continue their education toward a Bachelor of Science in Applied Science.

Program-Specific Educational Objectives

Mechanical Engineering Technology (A.A.S.)

The MET program produces graduates who:

- are able to analyze and design complex mechanical components and systems
- are able to set up experimental testing procedures and selectively utilize data to reinforce engineering concepts.
- have a basic understanding of modern manufacturing methods used to facilitate the production of consumer products
- are able to effectively and efficiently manage engineering projects (B.S. only).

Program Requirements

(58 semester hours)

Code	Title	Credit Hours
APC 136	Introduction to Interpersonal Communication	3
CIT 163 or CIT 153	Introduction to Computer Programming Introduction to C/C++ Programming	3
ECO 201	Principles of Microeconomics	3
ENG 111	Composition and Rhetoric	3
EGS 215 or ENG 313	Workplace Writing Technical Writing	3
ENT 135	Computer-Aided Drafting	3
ENT 137	Introduction to Engineering Technology	1
ENT 151	Engineering Materials	3
ENT 152	Computer-Aided Manufacturing I	3
ENT 192	Circuit Analysis I	3
ENT 235	Computer-Aided Design	3
ENT 252	Computer-Aided Manufacturing II	3
ENT 271	Mechanics I: Statics	3
ENT 272	Mechanics II: Strength of Materials	3
ENT 278	Mechanics III: Analysis of Machine Components	3
MTH 124	Trigonometry	3
MTH 151	Calculus I	4
PHY 161	Physics for the Life Sciences with Laboratory I	4

PHY 162	Physics for the Life Sciences with Laboratory II	4
Total Credit Hours		58