MECHANICAL ENGINEERING TECHNOLOGY (AAS)

Degree: Associate of Applied Science
Major: Mechanical Engineering Technology
Program Code: 1453

About This Major . . .

The objective of the Associate of Applied Science (AAS) in Mechanical Engineering Technology (MET) is to provide the knowledge necessary to aid in the design and realization of products and systems to meet the current and future needs of society. Completion of this applied engineering technology program provides graduates with the skills and knowledge for a successful transition to either a career as a mechanical engineering technician or to the Bachelor of Science program in Mechanical Engineering Technology.

The AAS in MET is designed for a student who is a doer or implementer - one who is able to apply mathematics, the natural and engineering sciences, engineering principles, and current engineering practices to the operation and testing of mechanical systems. Laboratory courses are an integral component of the MET program and are designed to develop student competence to apply experimental design methods, as well as provide a "hands-on" approach to building products and systems.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

a. Apply the knowledge, techniques, skills, and modern tools of engineering to engineering problems. (Critical Thinking/Applied Learning)
b. Apply knowledge of mathematics, science, and technology to engineering problems. (Quantitative Fluency)
c. Effectively use oral, written, and graphical communication skills to address both technical and non-technical audiences. (Communication Fluency)
d. Apply the ethical standards of the discipline to engineering problems. (Personal and social responsibility)
e. Develop scholarly arguments by locating, evaluating, applying, and synthesizing information from sociological and other social scientific sources. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 68 semester hours total for the AAS, Mechanical Engineering Technology.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics		
MATH 135	Engineering Calculus I	4
Humanities		
Select one Humanities Course		3
Social and Behavioral Sciences		

SOCI 120	Technology and Society-GTSS3	3
Total Semester Credit Hours		**16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one KINA Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(50 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
CSCI 130	Introduction to Engineering Computer Science	4
Select one of the following Course/Lab combinations:		5
CHEM 151 & 151L	Engineering Chemistry-GTSC1 and Engineering Chemistry Laboratory-GTSC1	
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	
ENGR 224 & 224L	Materials Science and Materials Science Laboratory	3
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
MAMT 115	Introduction to Machine Shop	3
MAMT 148	CNC Applications	3
MAMT 251	CNC Machining I	3
MAMT 255	CNC Machining II	3
MATH 136	Engineering Calculus II	4
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	5
ENGR 101	Introduction to Engineering	1
ENGR 125	Computer-Aided Design and Fabrication	3
ENGR 140	First-Year Engineering Project	3
ENGR 261	Statics and Structures	3
ENGR 263	Mechanics of Solids	3
Total Semester Credit Hours		**50**

Suggested Course Plan

First Year

Fall Semester

		Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
ENGR 101	Introduction to Engineering	1
ENGR 125	Computer-Aided Design and Fabrication	3
KINE 100	Health and Wellness	1
MATH 135	Engineering Calculus I	4
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
Semester Credit Hours		**16**

Spring Semester

		Semester Credit Hours
ENGL 112	English Composition II-GTCO2	3
ENGR 140	First-Year Engineering Project	3
MAMT 115	Introduction to Machine Shop	3
MATH 136	Engineering Calculus II	4
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	5
Semester Credit Hours		**18**

Second Year

Fall Semester

		Semester Credit Hours
CHEM 151 & 151L	Engineering Chemistry-GTSC1 and Engineering Chemistry Laboratory-GTSC1	5
CSCI 130	Introduction to Engineering Computer Science	4
ENGR 261	Statics and Structures	3
MAMT 148	CNC Applications	3
Humanities		3
Semester Credit Hours		**18**

Spring Semester

		Semester Credit Hours
ENGR 224 & 224L	Materials Science and Materials Science Laboratory	3
ENGR 263	Mechanics of Solids	3
MAMT 251	CNC Machining I	3
MAMT 255	CNC Machining II	3
SOCI 120	Technology and Society-GTSS3	3
KINA Activity Course		1
Semester Credit Hours		**16**
Total Semester Credit Hours		**68**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.

- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.