ASSOCIATE OF APPLIED SCIENCE IN MECHANICAL ENGINEERING TECHNOLOGY

The Mechanical Engineering Technology (MET) program is designed as a “two-plus-two” program. Students may earn an Associate of Applied Science degree after two years of full-time study. With this degree, they may begin a career in industry. The associate degree graduate can continue for two more years of full-time study to earn the bachelor’s degree.

The associate degree program introduces the student to the principles and practices of machine design, manufacturing processes, testing, and energy conversion. Students are also given a firm foundation in communications, mathematics, and science. Upon completion of the associate degree, graduates may find employment as engineering technicians in a wide variety of industries. They assist engineers in the design, drafting, testing, and support of mechanical products or of the industrial equipment and processes used to manufacture consumer products.

Program Educational Objectives

Educational objectives for the MET programs have been developed by faculty and the program industrial advisory committee to support the university, the college, and the School of Engineering Technology missions. Graduates of the MET associate degree program function as assistants in the design, drafting, and testing of mechanical products, processes, and equipment. Bachelor’s degree graduates assume greater responsibility in the design and testing of mechanical products, processes, and equipment.

During their first few years after completion of the mechanical engineering technology program at YSU, graduates will have demonstrated the ability to:

- Work competently in technical and professional careers related to the field of mechanical engineering technology.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition and/or compensation consistent with their educational achievements.

Accreditation

The Associate of Applied Science in Mechanical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, https://www.abet.org/), under the General Criteria and the Program Criteria for Mechanical Engineering Technology.

Date of last campus visit: October 2017

Accredited through: 2024

Next campus visit: October 2023

COURSE | TITLE | S.H.
--- | --- | ---
YSU 1500 | Success Seminar | 1-2
or SS 1500 | Strong Start Success Seminar | 1-2
or HONR 1500 | Intro to Honors | 1-2

General Education Courses:

ENGL 1550 | Writing 1 | 3-4
or ENGL 1549 | Writing 1 with Support | 3-4

ENGL 1551 | Writing 2 | 3

MATH 1513 | Algebra and Transcendental Function | 5

CHEM 1515 | General Chemistry 1 & 1515L | 4

CHEM 1515L | General Chemistry 1 Laboratory | 4

MATH 1570 | Applied Calculus 1 | 4

ENTC 1505 | Engineering Technology Concepts | 4

CCET 1503 | CAD Technology | 2

CCET 1504 | Drafting and Plan Reading | 2

MET 1515 | Mechanics 1 | 3

CCET 2604 | Properties and Strength of Materials | 3

CCET 2614L | Materials Laboratory 1 | 2

MET 2606 | Solid Modeling | 4

MET 2616 | Mechanics 2 | 3

MET 3714 | Fluid Mechanics | 4

MET 3714L | Fluid Mechanics Laboratory | 1

MET 2630 | Manufacturing Techniques | 3

MET 2630L | Manufacturing Techniques Laboratory | 1

MET 3706 | Machine Design 1 | 4

Total Major Credit Hours: 40 s.h.

Total General Education Credit Hours: 27-28 s.h.

Course in Major:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>PHYS 1501</td>
<td>Fundamentals of Physics 1</td>
<td>4</td>
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Select 2 courses from either AH or SS domain | 6

Total General Education Credit Hours: 27-28 s.h.

Year 1

Fall | S.H.
--- | ---
YSU 1500 | Success Seminar | 1
ENTC 1505 | Engineering Technology Concepts | 4
MATH 1513 | Algebra and Transcendental Function | 5
CCET 1503 | CAD Technology | 2
CCET 1504 | Drafting and Plan Reading | 2
ENGL 1550 | Writing 1 | 3

Year 2

Fall | S.H.
--- | ---
MET 2616 | Mechanics 2 | 3
MET 3714 | Fluid Mechanics | 5
MET 3714L | Fluid Mechanics Laboratory | 1

PHYS 1501 | Fundamentals of Physics 1 | 4

Arts & Humanities GER | 4

Year 3

Fall | S.H.
--- | ---
MET 2630 | Manufacturing Techniques | 4

and Manufacturing Techniques Laboratory | 4

MET 3706 | Machine Design 1 | 4

CHEM 1515 | General Chemistry 1 | 4

& 1515L | General Chemistry 1 Laboratory | 4

ENGL 1551 | Writing 2 | 3

Social Science GER | 3

Year 4

Spring | S.H.
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MET 2630 | Manufacturing Techniques | 4

and Manufacturing Techniques Laboratory | 4

MET 3706 | Machine Design 1 | 4

CHEM 1515 | General Chemistry 1 Laboratory | 4

ENGL 1551 | Writing 2 | 3

Social Science GER | 3

Total Semester Hours | 66

1 General Education Requirement: see "Schedule of Classes" for details.
SPA = Social & Personal Awareness (2 required for BSAS)
SS = Social Sciences (2 required for BSAS)
AH = Arts & Humanities (2 required for BSAS)

PROGRAM OUTCOMES
ASSOCIATE OF APPLIED SCIENCE IN mechanical engineering TECHNOLOGY
Graduates of the Associate Degree in Mechanical Engineering Technology will possess the following competencies upon graduation:

(1) an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline;

2) an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;

(3) an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

(4) an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results; and

(5) an ability to function effectively as a member of a technical team.