MECHANICAL ENGINEERING TECHNOLOGY, B.S. (BEHREND)

Begin Campus: Any Penn State Campus
End Campus: Erie

Degree Requirements

For the Bachelor of Science degree in Mechanical Engineering Technology, a minimum of 131 credits is required:

<table>
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<tr>
<th>Requirement</th>
<th>Credits</th>
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<tr>
<td>General Education</td>
<td>45</td>
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<td>Electives</td>
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<td>Requirements for the Major</td>
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18 of the 45 credits for General Education are included in the Requirements for the Major. This includes: 9 credits of GN courses; 6 credits of GQ courses; 3 credits of GWS courses.

Per Senate Policy 83.80.5, the college dean or campus chancellor and program faculty may require up to 24 credits of coursework in the major to be taken at the location or in the college or program where the degree is earned.

Requirements for the Major

A student enrolled in this major must earn at least a grade of C in each 300- and 400-level course.

To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44).

Code    Title                                      Credits
Prescribed Courses
CHEM 110 Chemical Principles I                        3
CHEM 111 Experimental Chemistry I                      1
ENGL 202C Effective Writing: Technical Writing        3
IET 215      Production Design                        2
IET 216      Production Design Laboratory              2
MATH 211 Intermediate Calculus and Differential Equations with Applications 3
MET 214      Strength and Properties of Materials Laboratory 1
MET 107      Computer Applications for Technologists  3
PHYS 251     Introductory Physics II                   4
Prescribed Courses: Require a grade of C or better
MATH 210     Calculus with Engineering Technology Applications 3
MET 111      Mechanics for Technology: Statics         3
MET 213      Strength and Properties of Materials      3
MET 206      Dynamics                                  3
MET 210W     Machine Design                            3
MET 306      Computer-Aided Design                     3

MET 320     Strength of Materials II                   3
MET 330     Thermodynamics                             3
MET 331W    Heat Transfer                              4
MET 341     Mechanical Measurements and Instrumentation 3
MET 415     Finite Element Analysis Applications I     3
MET 425     Finite Element Analysis Applications II    3
MET 432     Fluid Power                                3
MET 470     Materials Engineering                      3
MET 480     Senior Capstone                            1
MET 485     Senior Industrial Project                  3
PHYS 250    Introductory Physics I                     4

Additional Courses

Select one of the following: 3-4
EET 100     Electric Circuits, Power, and Electronics
EET 101     Electrical Circuits I
EET 105     Electrical Systems
& EET 109    and Electrical Circuits Laboratory I

Select one of the following: 6-7
EGT 101     and Introduction to Computer Aided Drafting
& EGT 102    and Spatial Analysis and Computer-Aided Drafting
& EGT 114    and Advanced Computer Aided Drafting
& EGT 201    and Transition From 2-D CAD to Solid Modeling
& EGT 205

EGT 120     Introduction to Graphics and Solid Modeling
& EGT 121    and Applied Solid Modeling

Additional Courses: Require a grade of C or better
IET 101     Manufacturing Materials, Processes, and Laboratory 3
or MET 105   Mechanical Systems
MATH 22     College Algebra With Analytic Geometry and Applications II 3
or MATH 82  Technical Mathematics II
MATH 26     Plane Trigonometry and Applications of Trigonometry 3
or MATH 81  Technical Mathematics I
MATH 83     Technical Calculus                           4
or MATH 140  Calculus With Analytic Geometry I

Supporting Courses and Related Areas
Select 6 credits of technical electives from school-approved list 6
Select 2-3 credits of business electives from school-approved list 2-3

General Education

Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (https://bulletins.psu.edu/undergraduate/general-education/baccalaureate-degree-general-education-program/) section of the Bulletin and consult your academic adviser.
The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

**Foundations (grade of C or better is required and Inter-Domain courses do not meet this requirement.)**
- Quantification (GQ): 6 credits
- Writing and Speaking (GWS): 9 credits

**Breadth in the Knowledge Domains (Inter-Domain courses do not meet this requirement.)**
- Arts (GA): 3 credits
- Health and Wellness (GHW): 3 credits
- Humanities (GH): 3 credits
- Social and Behavioral Sciences (GS): 3 credits
- Natural Sciences (GN): 3 credits

**Integrative Studies**
- Inter-Domain Courses (Inter-Domain): 6 credits

**Exploration**
- GN, may be completed with Inter-Domain courses: 3 credits
- GA, GH, GN, GS, Inter-Domain courses. This may include 3 credits of World Language course work beyond the 12th credit level or the requirements for the student’s degree program, whichever is higher: 6 credits

**University Degree Requirements**

**First Year Engagement**
All students enrolled in a college or the Division of Undergraduate Studies at University Park, and the World Campus are required to take 1 to 3 credits of the First-Year Seminar, as specified by their college First-Year Engagement Plan.

Other Penn State colleges and campuses may require the First-Year Seminar; colleges and campuses that do not require a First-Year Seminar provide students with a first-year engagement experience.

First-year baccalaureate students entering Penn State should consult their academic adviser for these requirements.

**Cultures Requirement**
6 credits are required and may satisfy other requirements
- United States Cultures: 3 credits
- International Cultures: 3 credits

**Writing Across the Curriculum**
3 credits required from the college of graduation and likely prescribed as part of major requirements.

**Total Minimum Credits**
A minimum of 120 degree credits must be earned for a baccalaureate degree. The requirements for some programs may exceed 120 credits. Students should consult with their college or department adviser for information on specific credit requirements.

**Quality of Work**
Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.