

# 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:

Requirement	Credits
General Education	45
Electives	0-1
Requirements for the Major	103-106

**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/students/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/>).

Code	Title	Credits
<b>Prescribed Courses</b>		
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
<i>Prescribed Courses: Require a grade of C or better</i>		
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 & EET 109	Electrical Systems and Electrical Circuits Laboratory I

Select one of the following: 6-7

EGT 101 & EGT 102 & EGT 114 & EGT 201 & EGT 205	and Introduction to Computer Aided Drafting and Spatial Analysis and Computer-Aided Drafting and Advanced Computer Aided Drafting and Transition From 2-D CAD to Solid Modeling
EGT 120 & EGT 121	Introduction to Graphics and Solid Modeling and Applied Solid Modeling

*Additional Courses: Require a grade of C or better*

IET 101 or MET 105	Manufacturing Materials, Processes, and Laboratory	3
MATH 22 or MATH 82	College Algebra With Analytic Geometry and Applications II Technical Mathematics II	3
MATH 26 or MATH 81	Plane Trigonometry and Applications of Trigonometry Technical Mathematics I	3
MATH 83 or MATH 140	Technical Calculus Calculus With Analytic Geometry I	4

### 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.

**Limitations on Source and Time for Credit Acquisition**

The college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80 (<https://senate.psu.edu/students/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/>)). For more information, check the Suggested Academic Plan for your intended program.