

# PLASTICS ENGINEERING TECHNOLOGY, B.S.

**Begin Campus:** Any Penn State Campus

**End Campus:** Erie

## Degree Requirements

For the Bachelor of Science degree in Plastics Engineering Technology, a minimum of 134 credits is required:

Requirement	Credits
General Education	45
Electives	1
Requirements for the Major	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

Each student must earn at least a grade of C in each 300- and 400-level course in the major field.

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>		
EGT 120	Introduction to Graphics and Solid Modeling	3
EGT 121	Applied Solid Modeling	3
MATH 211	Intermediate Calculus and Differential Equations with Applications	3
<i>Prescribed Courses: Require a grade of C or better</i>		
CHEM 110	Chemical Principles I	3
CHEM 111	Experimental Chemistry I	1
ENGL 202C	Effective Writing: Technical Writing	3
MET 111	Mechanics for Technology: Statics	3
MET 213	Strength and Properties of Materials	3
MET 418	Finite Element Analysis for Plastics Design	3
MGMT 409	Project Management for Engineers	3
PHYS 250	Introductory Physics I	4
PLET 50	Computer Applications for Plastics Engineering Technology	2
PLET 205	Introduction to Plastics	3
PLET 206W	Plastic Materials and Properties	3
PLET 222	Introduction to Plastics Processing	4
PLET 227	Plastics Processing & Statistical Methods	4

PLET 232	Introduction to Part and Tool Design	3
PLET 235	Tool Design & Machining	2
PLET 304	Plastic Material Properties and Applications	3
PLET 323	Packaging Processes	3
PLET 330	Advanced Tooling & Rheology	4
PLET 345	Heat Transfer	3
PLET 350	Design of Plastic Parts	4
PLET 366	Fluid and Thermal Sciences	3
PLET 464	Plastics Failure Analysis	3
PLET 481	Plastic Product Development	3
PLET 494A	Plastics Projects	3

## Additional Courses

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

Select 15 credits from one of the following sequences: 15

### Sequence A

MATH 22 College Algebra With Analytic Geometry and Applications II  
or MATH 82 Technical Mathematics II

MATH 26 Plane Trigonometry and Applications of Trigonometry

or MATH 81 Technical Mathematics I

MATH 83 Technical Calculus  
or MATH 14 Calculus With Analytic Geometry I

MATH 210 Calculus with Engineering Technology Applications

2 credits of GN electives

### Sequence B

MATH 140 Calculus With Analytic Geometry I

MATH 141 Calculus with Analytic Geometry II

2 credits of GN electives

5 credits of general electives

## Supporting Courses and Related Areas

Select a total of 9 credits of technical electives from School-approved list 9

## 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.