

# INTERDISCIPLINARY BUSINESS WITH ENGINEERING STUDIES, B.S.

**Begin Campus:** Any Penn State Campus

**End Campus:** Erie

## Degree Requirements

For the Bachelor of Science degree in Interdisciplinary Business with Engineering Studies, a minimum of 127 credits are required:

Requirement	Credits
General Education	45
Electives	0-1
Requirements for the Major	111-113

**30 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, 6 credits of GS courses, 9 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>		
BA 241	Legal Environment of Business	2
BA 242	Social and Ethical Environment of Business	2
CHEM 110	Chemical Principles I	3
EDSGN 100S	Introduction to Engineering Design	3
<i>Prescribed Courses: Require a grade of C or better</i>		
ACCTG 211	Financial and Managerial Accounting for Decision Making	4
CAS 100	Effective Speech	3
CMPSC 121	Introduction to Programming Techniques	3
ECON 102	Introductory Microeconomic Analysis and Policy	3
ECON 104	Introductory Macroeconomic Analysis and Policy	3
EGT 120	Introduction to Graphics and Solid Modeling	3
ENGL 202C	Effective Writing: Technical Writing	3
FIN 301	Corporation Finance	3
MATH 140	Calculus With Analytic Geometry I	4
MGMT 301	Basic Management Concepts	3
MGMT 410	Project Management	3
MGMT 475W	Strategic Product Development	3

MGMT 476	Product Realization Capstone	3
MIS 204	Introduction to Management Information Systems	3
MKTG 301	Principles of Marketing	3
SCM 301	Supply Chain Management	3

#### Additional Courses

PHYS 211	General Physics: Mechanics	4
or PHYS 250	Introductory Physics I	
PHYS 212	General Physics: Electricity and Magnetism	4
or PHYS 251	Introductory Physics II	

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

EE 211	Electrical Circuits and Power Distribution	3
or EET 101	Electrical Circuits I	
EMCH 211	Statics	3
or MET 111	Mechanics for Technology: Statics	
EMCH 213	Strength of Materials	3
or MET 213	Strength and Properties of Materials	
ENGL 15	Rhetoric and Composition	3
or ENGL 30H	Honors Rhetoric and Composition	
MATH 141	Calculus with Analytic Geometry II	3-4
or MATH 210	Calculus with Engineering Technology Applications	

SCM 200	Introduction to Statistics for Business	4
or STAT 200	Elementary Statistics	

Select 3 credits from the following: 3

CMPEN 271	Introduction to Digital Systems	
CMPET 117	Digital Electronics	
IE 302	Engineering Economy	
IE 327	Introduction to Work Design	
QC 450	Quality Control and Quality Improvement	

Select 3 credits from the following: 3

IE 330	Engineering Analytics	
IE 497	Special Topics	
ME 300	Engineering Thermodynamics I	
MET 330	Thermodynamics	

Select 3 credits from the following: 3

ECON 470	International Trade and Finance	
FIN 471	International Finance	
IB 303	International Business Operations	
MGMT 461	International Management	
MKTG 445	Global Marketing	
Other 300-400-level international business course		

#### Supporting Courses and Related Areas

Select one module from School Approved List of Modules 1-5. 15-16  
Except where noted, courses taken to satisfy General Education requirements may not be used to satisfy module requirements.

### 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.