

# BS INDUSTRIAL TECHNOLOGY AND PACKAGING

## Program Learning Objectives

1. Apply fundamental knowledge and skills to solve management, technology and applied engineering problems.
2. Evaluate the ethical responsibilities in a business or technology context.
3. Relate knowledge of sustainability to practices in industry.
4. Apply decision tools and methods and make recommendations based on their outcome.
5. Demonstrate effective participation and leadership in teams.
6. Demonstrate effective writing and speaking skills.

## Degree Requirements and Curriculum

In addition to the program requirements listed on this page, students must also satisfy requirements outlined in more detail in the Minimum Requirements for Graduation (<http://catalog.calpoly.edu/generalrequirementsbachelorsdegree/#generaleducationtext>) section of this catalog, including:

- 60 units of upper-division courses
- 2.0 GPA
- Graduation Writing Requirement (GWR)
- U.S. Cultural Pluralism (USCP)

Note: No Major or Support courses may be selected as credit/no credit.

### MAJOR COURSES

ITP 100	Student Orientation, College Success and Career Readiness	1
ITP 125	Introduction to Supply Chain and Packaging Systems	3
ITP 150	Industrial Power Systems	4
ITP 211	Industrial Safety and Quality Program Leadership	4
ITP 233	Product Modeling and Communication	4
ITP 303	Lean Six Sigma Green Belt	4
ITP 326	Product Design and Development	4
ITP 330	Packaging Fundamentals (Upper-Division B) <sup>1</sup>	4
ITP 341	Packaging Polymers and Processing	4
ITP 371	Supply Chain Management in Manufacturing and Services	4
ITP 406	Professional Technical Selling	4
ITP 409	Packaging Machinery and Processes	4
ITP 411	Packaging Sustainability	4
ITP 415	Supply Chain and Logistics	4
ITP 461	Senior Project I	2
ITP 462	Senior Project II	2
Concentration courses (see below)		40

### SUPPORT COURSES

BUS 346	Principles of Marketing	4
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BUS 391	Information Systems	4
CHEM 124	General Chemistry for Physical Science and Engineering I (B1 & B3) <sup>1</sup>	4
or CHEM 127	General Chemistry for Agriculture and Life Science I	
ECON 201	Survey of Economics (D2) <sup>1</sup>	4
MATH 141	Calculus I (B4) <sup>1</sup>	4
or MATH 221	Calculus for Business and Economics	
PHYS 121	College Physics I	4
PHYS 123	College Physics III	4
STAT 217	Introduction to Statistical Concepts and Methods (GE Electives) <sup>1</sup>	4
or STAT 218	Applied Statistics for the Life Sciences	
or STAT 251	Statistical Inference for Management I	
<b>GENERAL EDUCATION (GE)</b>		
(See GE program requirements below.)		52
<b>FREE ELECTIVES</b>		
Free Electives		0
<b>Total units</b>		<b>180</b>

<sup>1</sup> Required in Major or Support; also satisfies General Education (GE) requirement.

## Concentrations

- Industrial Technology (<http://catalog.calpoly.edu/collegesandprograms/orfaleacollegeofbusiness/bsindustrialtechnologypackaging/industrialtechnologyconcentration/>)
- Packaging Technology (<http://catalog.calpoly.edu/collegesandprograms/orfaleacollegeofbusiness/bsindustrialtechnologypackaging/packagingtechnologyconcentration/>)

## General Education (GE) Requirements

- 72 units required, 20 of which are specified in Major and/or Support.
- If any of the remaining 52 units is used to satisfy a Major or Support requirement, additional units of Free Electives may be needed to complete the total units required for the degree.
- See the complete GE course listing (<http://catalog.calpoly.edu/generalrequirementsbachelorsdegree/#generaleducationtext>).
- A grade of C- or better is required in one course in each of the following GE Areas: A1 (Oral Communication), A2 (Written Communication), A3 (Critical Thinking), and B4 (Mathematics/Quantitative Reasoning).

<b>Area A</b>	<b>English Language Communication and Critical Thinking</b>	
A1	Oral Communication	4
A2	Written Communication	4
A3	Critical Thinking	4
<b>Area B</b>	<b>Scientific Inquiry and Quantitative Reasoning</b>	
B1	Physical Science (4 units in Support) <sup>1</sup>	0
B2	Life Science	4
B3	One lab taken with either a B1 or B2 course	

B4	Mathematics/Quantitative Reasoning (4 units in Support) <sup>1</sup>	0
Upper-Division B (4 units in Major) <sup>1</sup>		0
<b>Area C</b>	<b>Arts and Humanities</b>	
Lower-division courses in Area C must come from three different subject prefixes.		
C1	Arts: Arts, Cinema, Dance, Music, Theater	4
C2	Humanities: Literature, Philosophy, Languages other than English	4
Lower-Division C Elective - Select a course from either C1 or C2		4
Upper-Division C		4
<b>Area D</b>	<b>Social Sciences - Select courses in Area D from at least two different prefixes</b>	
D1	American Institutions (Title 5, Section 40404 Requirement)	4
D2	Lower-Division D (4 units in Support) <sup>1</sup>	0
Upper-Division D		4
<b>Area E</b>	<b>Lifelong Learning and Self-Development</b>	
Lower-Division E		4
<b>Area F</b>	<b>Ethnic Studies</b>	
Lower-Division F		4
<b>GE Electives in Areas B, C, and D</b>		
Select courses from two different areas; may be lower-division or upper-division courses.		
GE Electives (4 units in Support plus 4 units in GE) <sup>1</sup>		4
Total units		52

<sup>1</sup> Required in Major or Support; also satisfies General Education (GE) requirement.