

# Industrial Technology

Business Bldg. (03), Room 405  
805 756-2676

## Area Chair: Lou Tornatzky

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Industrial Technology prepares individuals to be effective technical managers and entrepreneurial leaders in a rapidly-changing technological and global economy. The baccalaureate curriculum is particularly suited for careers that involve working with people and technology concurrently. It includes instruction in electro-mechanical systems, industrial materials and processes, and quality and safety management that are then applied to technology-based business problems in packaging, value chain management, and technology entrepreneurship. Students take complementary courses in physics, chemistry, calculus and statistics. The curriculum also includes a business core with accounting, economics, marketing, and information systems.

The themes of insuring quality, enabling innovation, and enhancing value are woven through the curriculum.

## Learning Objectives

The Industrial Technology majors will:

1. demonstrate detailed knowledge, skills, and perspectives within program specific areas of technology application.
2. explain and act on ethical issues regarding the applications of technology.
3. explain and act on issues of sustainability regarding the applications of technology.
4. act upon decision tools and methods and explain the action taken.
5. work effectively in teams.
6. demonstrate effective verbal communications skills.
7. will demonstrate effective technical written communications skills.
8. explain and act on interactions between humans and technological systems.

## BS INDUSTRIAL TECHNOLOGY

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|---------------------------|--------|
| ☐ 60 units upper division | ☐ GWR  |
| ☐ 2.0 GPA                 | ☐ USCP |

\* = Required in Major/Support; also satisfies GE  
Note: No major, support or concentration courses may be taken as credit/no credit.

## MAJOR COURSES

IT 137 Electrical/Electronic Systems .....	4
IT 150 Industrial Power Systems.....	4
IT 233 Decision Making/Prob Solving using CAD	4
IT 260 Manufacturing Processes .....	4
IT 326 Product Evaluation.....	4
IT 329 Industrial Materials.....	4
IT 330 Fundamentals of Packaging (Area F)* .....	4
IT 341 Plastics Processes and Applications .....	4
IT 403 Quality Systems Management .....	4
IT 407 Applied Industrial Product Design, Fabrication and Sales .....	4
IT 408 Paper and Paperboard Packaging.....	4
IT 410 Operations Planning and Control.....	4
IT 411 Industrial Safety and Quality Program Leadership.....	4
IT 428 Commercialization of New Technologies....	4
IT 475 Packaging Performance Testing .....	4
Choose two of the following three courses: .....	8
IT 402, 435, 406	
Senior Project: IT 461, 462 Senior Project I, II or IT 464 Applied Industrial Technology Senior Project Seminar.....	4
Approved electives .....	8
Select from the following. Additional courses may satisfy this requirement, but must be approved in advance by the Area Chair: BUS 342, 387; IT 371, 403, 408, 409, 435, 445, 451, 454, 475	

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**80**

## SUPPORT COURSES

BUS 212 Financial Acctg for Nonbusiness Majors	4
BUS 346 Principles of Marketing .....	4
BUS 391 Information Systems .....	4
CHEM 110 World of Chemistry – Essentials or CHEM 111 Survey of Chemistry (B3 & B4)*	4/5
ECON 201 Survey of Economics (D2)* .....	4
MATH 141 Calculus I or MATH 221 Calculus for Business and Economics (B1)* .....	4
PHYS 121, 122 College Physics I, II .....	4,4
STAT 217 Intro to Statistical Concepts and Methods or STAT 218 Appl. Statistics-Life Sciences (B1)* .....	4

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**36/37**

**GENERAL EDUCATION (GE)**

72 units required, 20 of which are specified in Major and Support.

→See page 50 for complete GE course listing.

→Minimum of 12 units required at the 300 level.

**Area A Communication (12 units)**

A1 Expository Writing .....	4
A2 Oral Communication .....	4
A3 Reasoning, Argumentation, and Writing .....	4

**Area B Science and Mathematics (4 units)**

B1 Mathematics/Statistics * 8 units in Support....	0
B2 Life Science .....	4
B3 Physical Science * 4 units in Support.....	0
B4 One lab taken with either a B2 or B3 course	

**Area C Arts and Humanities (20 units)**

C1 Literature .....	4
C2 Philosophy .....	4
C3 Fine/Performing Arts .....	4
C4 Upper-division elective .....	4
Area C elective (Choose one course from C1-C4)	4

**Area D/E Society and the Individual (16 units)**

D1 The American Experience (40404) .....	4
D2 Political Economy * 4 units in Support .....	0
D3 Comparative Social Institutions .....	4
D4 Self Development (CSU Area E) .....	4
D5 Upper-division elective .....	4

**Area F Technology Elective (upper division)**

* 4 units in Major .....	0
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**52****FREE ELECTIVES..... 11/12****180**