

**DEPARTMENT OF INDUSTRIAL & ENGINEERING TECHNOLOGY
BACHELOR OF SCIENCE
INDUSTRIAL TECHNOLOGY MAJOR
INDUSTRIAL MANAGEMENT OPTION**

The Industrial Management option incorporates a combination of industrial technology and business management components designed to prepare students for technically oriented mid-management positions in the manufacturing and production sectors of industry. This program incorporates hands-on experiences and management-related theory to prepare students to communicate and function within the management, engineering, and production environments of industry.

CURRICULUM CHECKLIST

UNIVERSITY STUDIES (53 hours)

| | |
|---|---|
| <input type="checkbox"/> UI 100 First Year Seminar | 3 |
| <input type="checkbox"/> Artistic Expression | 3 |
| <input type="checkbox"/> Literary Expression | 3 |
| <input type="checkbox"/> Oral Expression | 3 |
| <input type="checkbox"/> EN 100 English Composition | 3 |
| <input type="checkbox"/> Written Expression | 3 |
| <input type="checkbox"/> Behavioral Systems | 3 |
| <input type="checkbox"/> Living Systems | 3 |
| <input type="checkbox"/> MA 134 College Algebra (Logical Systems) | 3 |
| <input type="checkbox"/> PH 120/020 Introductory Physics I (Physical Systems) | 5 |
| <input type="checkbox"/> Development of a Major Civilization | 3 |
| <input type="checkbox"/> MN 220 Engineering Economic Analysis (Economic Systems) | 3 |
| <input type="checkbox"/> Political Systems | 3 |
| <input type="checkbox"/> SW 207 Understanding Cult & Soc Diversity (Social Systems) | 3 |
| <input type="checkbox"/> UI 3xx Interdisciplinary University Studies Course (UI319 recommended) | 3 |
| <input type="checkbox"/> UI 3xx Interdisciplinary University Studies Course | 3 |
| <input type="checkbox"/> UI 410 Manufacturing Research in a Global Society- University Studies Senior Seminar | 3 |
| <input type="checkbox"/> WP 003 Writing Proficiency Test (to be taken after completing 75 hours) | 0 |
| <input type="checkbox"/> CCTST Critical Thinking Test (to be taken after completing 75 hours) | 0 |
| <input type="checkbox"/> CL001 <input type="checkbox"/> CL002 <input type="checkbox"/> CL003 <input type="checkbox"/> CL004 Career Linkages Requirements | 0 |

INDUSTRIAL TECHNOLOGY CORE

(26 Hours, not counting 17 hours included in University Studies section)

| | |
|---|---|
| <input type="checkbox"/> CH 181/081/001 Basic Principles of Chemistry | 5 |
| <input type="checkbox"/> IM 102 Technical Communication | 3 |
| <input type="checkbox"/> IM 301 Industrial Safety | 3 |
| <input type="checkbox"/> IM 311 Statistical Process Control | 3 |
| <input type="checkbox"/> IM 419 Industrial Supervision | 3 |
| <input type="checkbox"/> IM 506 Projects in IET | 3 |
| <input type="checkbox"/> MA 133 Plane Trigonometry | 3 |
| <input type="checkbox"/> MN 260 Technical Computer Programming Applications | 3 |

IT required courses included in University Studies section above: MA134, MN220, PH120, SW207, and UI410

INDUSTRIAL MANAGEMENT OPTION (42 Hours)

| | |
|---|---|
| <input type="checkbox"/> ET 160 Basic Electricity and Electronics | 3 |
| <input type="checkbox"/> ET 194 Fundamentals of Programmable Logic Controllers (PLCs) | 3 |
| <input type="checkbox"/> IM 313 Facilities Planning | 3 |
| <input type="checkbox"/> IM 315 Work Measurement | 3 |
| <input type="checkbox"/> IM 411 Total Quality Assurance | 3 |
| <input type="checkbox"/> IM 417 Manufacturing Resource Analysis | 3 |
| <input type="checkbox"/> MA 139 Applied Calculus | 3 |
| <input type="checkbox"/> MG 301 Principles of Management | 3 |
| <input type="checkbox"/> MN 120 Fundamentals of Engineering Design Process | 3 |
| <input type="checkbox"/> MN 170 Engineering Materials and Testing | 3 |
| <input type="checkbox"/> MN 203 Industrial Materials and Processes I | 3 |
| <input type="checkbox"/> MN 204 Industrial Materials and Processes II | 3 |
| <input type="checkbox"/> MN 221 Solid Modeling & Rapid Prototyping | 3 |
| <input type="checkbox"/> QM 352 Quantitative Methods | 3 |

EXAMPLE PROGRAM OF STUDY
BS - Industrial Technology major - Industrial Management option

FRESHMAN FALL SEMESTER (17 hrs)

CH 181/081/001 Basic Principles of Chemistry
EN 100 English Comp
MA 134 College Algebra
MN120 Fund of Engineering Design Processes
UI 100 First Year Seminar
CL001 Career Linkages 1st Requirement

SOPHOMORE FALL SEMESTER (17 hrs)

IM 301 Industrial Safety
MA 139 Applied Calculus
MN 203 Industrial Material & Processes I
PH 120 Introductory Physics I
Artistic Expression

JUNIOR FALL SEMESTER (15 hrs)

ET 194 Fundamentals of PLCs
IM 311 Statistical Process Control
IM 315 Work Measurement
MG 301 Principles of Management
Development of a Major Civilization
CL003 Career Linkages 3rd Requirement

SENIOR FALL SEMESTER (14-15 hrs)

IM 313 Facilities Management
IM 411 Total Quality Assurance
IM506 Project in Ind. And Eng. Tech.
UI 3xx (UI 319 Recommended)
Behavioral Systems
CL004 Career Linkages 4th Requirement

FRESHMAN SPRING SEMESTER (15 hrs)

IM 102 Technical Communication
MA 133 Plane Trigonometry
MN 170 Engineering Materials & Testing
Literary Expression
Written Expression
CL002 Career Linkages 2nd Requirement

SOPHOMORE SPRING SEMESTER (15 hrs)

ET 160 Basic Electricity & Electronics
MN 204 Industrial Materials Processes II
MN 260 Technical Computer Programming Appl.
Oral Expression
Political Systems

JUNIOR SPRING SEMESTER (15 hrs)

IM 419 Industrial Supervision
MN 220 Engineering Economics Analysis
MN221 Solid Modeling & Rapid Prototyping
QM 352 Quantitative Methods
Living Systems
WP 003 Writing Proficiency Exam
CCTST California Critical Thinking Skills Test

SENIOR SPRING SEMESTER (12 hrs)

IM 417 Manufacturing Resource Management
UI 3xx University Studies
UI 410 Manufacturing Research Global Society
SW207 Understanding Social and Cultural
Diversity (Social Systems)

120 - 121 Hours

Notes:

- This proposed rotation is suggested. You will need to meet with your advisor every semester for advising and discussions about your progress and plans.
 - Course prerequisites and rotations can change. Even if you fall under an older option of a major, changes in prerequisites apply to all students. For current prerequisites and course rotation, check with the Department of Industrial and Engineering Technology or the Polytechnic Studies Advising Center.
 - An internship is highly recommended – the summer after your junior year is a good time.
 - For course descriptions, see the latest undergraduate bulletin OR www.semo.edu/bulletin.
 - Visit <http://www.semo.edu/ustudies/handbook/index.htm> for information on the University Studies program.
- For information on Career Linkages, visit <http://www.semo.edu/careerlinkages/students/index.htm>.