# Recommended Industrial Management and Technology Course sequence

## Undergraduate Catalog - 2015/2016

**Total undergraduate credits**: 120

### Freshman (Fall)
- 3 TECH 211 - Computer-Aided-Design
- 3 MATH115 - Trigonometry
- 3 CHEM 110 - General Chemistry I
- 1 CHEM 111 - General Chemistry I Lab
- 3 ENGL103 - Composition I
- 3 General Education Requirement 1

**Total credits**: 16

### Freshman (Spring)
- 3 COMS100 - Communications
- 3 ENGL203 - Composition I
- 4 PHYS 150A - Physics or Phy210 - General Physics I
- 3 General Education Requirement 2
- 3 General Education Requirement 3

**Total credits**: 16

### Sophomore (Fall)
- 3 Technology Area of Study 1
- 3 TECH 265 - Basic Manufacturing Processes
- 3 TECH 175 - Electricity and Electrical Fund.
- 1 TECH 175A - Electricity and Electrical Fund. Lab
- 3 TECH 404 - Supervision in Industry

**Total credits**: 16

### Sophomore (Spring)
- 3 General Education Requirement 4
- 3 TECHNOLOGY Area of Study 2
- 3 Ind Mgmt & Tech Elective 1

**Total credits**: 15

### Junior (Fall)
- 3 General Education Requirement 5
- 3 TECH 429 - Plant location, Layout, and Materials Handling
- 3 Technology Area of Study 3
- 3 TECH 391 - Industrial Quality Control
- 3 TECH 415 - Applied Industrial Experimental Analysis

**Total credits**: 15

### Junior (Spring)
- 3 TECHNOLOGY Area of Study 4
- 3 TECH 404 - Supervision In Industry
- 3 Engl 308 - Tech Writing or Mgmt 346 - Business Comms
- 3 TECHNOLOGY Area of Study 5

**Total credits**: 15

### Senior (Fall)
- 3 TECHNOLOGY Area of Study 5
- 3 Ind Mgmt & Technology Elective 2
- 3 Technology Area of Study 7
- 3 Technology Elective 1
- 3 TECHNOLOGY Area of Study 6
- 3 TECH 492 - Manufacturing Distribution Applications

**Total credits**: 15

### Senior (Spring)
- 3 Technology Elective 2
- 3 Technology Area of study 8
- 3 TECH 496 - Industrial Project Management
- 3 General Elective

**Total credits**: 12

## Industrial Management and Technology Electives (Choose 2)
- TECH 305 - Green Technologies, TECH 402 - Industrial Training and Evaluation, TECH 442 - Work Simplification & Measurement,
- TECH 443 - Engineering Economy, TECH 444 - Production Control Systems, TECH 484 - Energy Management

## Areas of Concentration within the Industrial Management & Technology Program

### Computer-Aided-Design (CAD)
- TECH 262 - Machine Production Processes
- TECH 311 - Computer-Aided Modeling
- TECH 312 - Design Dimensioning and Tolerancing
- TECH 313 - Product Design and Development for Manufacturability
- TECH 365 - Metrology
- TECH 414 - Computer-Aided Machine Design

**Two of the following**
- TECH 260 - Metal Fabrication Processes
- TECH 344 - Materials and Processes in the Plastics Industry
- TECH 345 - Plastic Molding Processes
- TECH 417 - Design for Energy Efficient and Green Materials
- TECH 420 - Computer-Integrated Manufacturing
- TECH 427 - Testing Methods, Procedures, & Selection of Sustainable Plastics

### Manufacturing Technology
- TECH 260 - Metal Fabrication Processes
- TECH 262 - Machine Production Processes
- TECH 311 - Computer-Aided Modeling
- TECH 313 - Product Design and Development for Manufacturability
- TECH 365 - Metrology
- TECH 420 - Computer-Integrated Manufacturing

**Two of the following**
- TECH 312 - Design Dimensioning and Tolerancing
- TECH 344 - Materials and Processes in the Plastics Industry
- TECH 409 - Internship
- TECH 417 - Design for Energy Efficient and Green Materials
- TECH 427 - Testing Methods, Procedures, & Selection of Sustainable Plastics

### Electronics Technology
- TECH 270 - Electrical Fundamentals and Circuit Analysis I
- TECH 270A - Electrical Fundamentals and Circuit Analysis Lab I
- TECH 276 - Electronics I
- TECH 276A - Electronics I Lab
- TECH 277 - Digital Logic Design
- TECH 277A - Digital Logic Design Lab
- TECH 295 - Manufacturing Computer Applications or CSCI 215 - Visual Basic
- TECH 377 - Microprocessors and Interfacing
- TECH 377A - Microprocessors and Interfacing Lab

**Two of the following**
- TECH 409 - Internship
- TECH 429 - Programmable Electronic Controllers
- TECH 428 - Electric Systems Applications for Alternative Energy
- TECH 430 - Microcontrollers Interfacing and Applications
- TECH 473 - Advanced Digital Design

### Environmental Health and Safety
- TECH 231 - Safety Programs
- TECH 245 - Pollution, Pestience, Prevention, & the Cost of Doing Bus
- TECH 346 - Design and Administration of Ind Safety Programs
- TECH 437 - Fundamentals of Industrial Hygiene
- TECH 441 - Hazard Control in Industrial Operations
- TECH 481 - Ergonomics

**Two of the following**
- TECH 409 - Internship
- TECH 411 - Greening Industrial Operations
- TECH 432 - Disaster Preparedness
- TECH 433 - Toxicology for Industry
- TECH 435 - Legal Aspects of Safety
- TECH 485 - Risk Management

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**Notes:**
- A Technical elective course may be any course offered within the Department of Technology, as determined with consent of the faculty advisor.
- A general elective course may be any course offered from any department on campus.