

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

The Construction Management and Design option incorporates a combination of technical and management components designed to prepare students for technically oriented mid-management positions in the construction 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 the construction 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

CONSTRUCTION MANAGEMENT AND DESIGN OPTION (42 Hours)

| | |
|---|---|
| <input type="checkbox"/> CM 126 Computer Aided Architectural Drafting | 3 |
| <input type="checkbox"/> CM 226 Residential Architectural Drafting & Design | 3 |
| <input type="checkbox"/> CM 243 Construction Methods and Materials | 3 |
| <input type="checkbox"/> CM 310 Construction Building Codes | 3 |
| <input type="checkbox"/> CM 315 Construction Contracts and Legal Issues | 3 |
| <input type="checkbox"/> CM 320 Construction Cost Estimating | 3 |
| <input type="checkbox"/> CM 322 Commercial Architectural Drafting & Design | 3 |
| <input type="checkbox"/> CM 325 Building Mechanical & Electrical Systems | 3 |
| <input type="checkbox"/> CM 330 Construction Planning & Scheduling | 3 |
| <input type="checkbox"/> CM 343 Construction Surveying & Testing | 3 |
| <input type="checkbox"/> CM 410 Construction Project Administration | 3 |
| <input type="checkbox"/> IM 317 Internship | 3 |
| <input type="checkbox"/> MA 139 Applied Calculus | 3 |
| <input type="checkbox"/> MN 319 Statics and Strengths of Materials | 3 |

EXAMPLE PROGRAM OF STUDY

BS - Industrial Technology major - Construction Management and Design option

FRESHMAN FALL SEMESTER (15 hrs)

CM 126 Computer Aided Architectural Drafting
EN 100 English Comp
IM 102 Technical Communication
MA 134 College Algebra
UI 100 First Year Seminar
CL001 Career Linkages 1st Requirement

FRESHMAN SPRING SEMESTER (15 hrs)

CM 243 Construction Methods & Materials
MA 133 Plane Trigonometry
Literary Expression
Oral Expression
Written Expression
CL002 Career Linkages 2nd Requirement

SOPHOMORE FALL SEMESTER (17 hrs)

CH 181/081/001 Basic Principles of Chemistry
CM 310 Construction Building Codes
IM 301 Industrial Safety
MA 139 Applied Calculus
Artistic Expression

SOPHOMORE SPRING SEMESTER (14 hrs)

CM 226 Residential Arch. Drafting & Design
MN 260 Technical Computer Programming Appl.
PH 120/020 Introductory Physics I
SW 207 Understanding Cult. & Soc. Diversity
(Social Systems)

JUNIOR FALL SEMESTER (15 hrs)

CM 315 Construction Contracts & Legal Issues
CM 320 Construction Cost Estimating
IM 311 Statistical Process Control
Behavioral Systems
Political Systems
CL003 Career Linkages 3rd Requirement

JUNIOR SPRING SEMESTER (15 hrs)

CM 322 Commercial Arch. Drafting & Design
CM 343 Construction Surveying & Testing
IM 317 Industrial Internship (*usually summer*)
MN 220 Engineering Economic Analysis
MN 319 Statics & Strengths of Materials
WP 003 Writing Proficiency Exam
CCTST California Critical Thinking Skills Test

SENIOR FALL SEMESTER (15 hrs)

CM 325 Building Mechanical & Electrical Systems
CM 330 Construction Planning and Scheduling
IM 506 Projects in IET
UI 3xx (UI 319 recommended)
Living Systems
CL004 Career Linkages 4th Requirement

SENIOR SPRING SEMESTER (15 hrs)

CM 410 Construction Project Administration
IM 419 Industrial Supervision
UI 3xx (University Studies)
UI 410 Manufacturing Research Global Society
Developments of a Major Civilization

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>