

Department of Construction Management

(College of Humanities, Arts and Sciences)

The Department of Construction Management offers the following programs:

Undergraduate Major (B.S.)

- Construction Management (p. 1)

Bachelor of Science Degree Program

Construction Management Major

The B.S. Construction Management major requires a minimum of 120 total hours to graduate. This total includes UNIFI/General Education requirements and the following specified major requirements, plus electives to complete the minimum of 120 hours.

Math and Science:

| | | |
|--------------|--|---|
| MATH 1150 | Calculus for Technology [^] | 4 |
| CHEM 1020 | Chemical Technology | 4 |
| PHYSICS 1511 | General Physics I [^] | 4 |
| STAT 1772 | Introduction to Statistical Methods [^] | 3 |

Required Core:

| | | |
|-------------------|---|---|
| PHIL 1560 | Science, Technology, and Ethics (STE) | 3 |
| TECH CM 1015 | Introduction to Sustainability | 3 |
| ENGLISH 1005 | College Writing and Research | 3 |
| ENGLISH 3772/5772 | Technical Writing for Engineering Technologists | 3 |
| ENGR 1000 | Introduction to Engineering & Professional Practice | 3 |
| ENGR 2080 | Statics | 2 |
| ENGR 2180 | Strength of Materials | 2 |
| TECH CM 1000 | Fundamentals of Construction Management Materials & Methods | 3 |
| TECH CM 1016 | Computer Aided Design and Drafting | 2 |
| TECH CM 1050 | Construction Safety | 3 |
| TECH CM 1100 | Construction Documents | 3 |
| TECH CM 2000 | Land, Route, and Construction Surveying | 3 |
| TECH CM 2050 | Construction Law | 3 |
| TECH CM 2200 | Construction Project Management | 3 |
| TECH CM 2300 | Building Services | 3 |
| TECH CM 3000 | Heavy Construction Operations & Equipment | 3 |
| TECH CM 2400 | Construction Materials | 3 |

| | | |
|---------------------------------|---|-----------|
| TECH CM 3050 | Construction Estimating | 3 |
| TECH CM 3150 | Construction Project Planning, Scheduling and Control | 3 |
| TECH CM 3300 | Pre Construction Management | 3 |
| TECH CM 4200 | Structural Components of Construction | 3 |
| TECH CM 4350 | Construction Company Operations & Management | 3 |
| ENGR 4500 | Senior Design [@] | 3 |
| Business and Management: | | |
| ACCT 2120 | Principles of Financial Accounting | 3 |
| ECON 1031 | Introduction to Business Economics | 3 |
| Recommended elective: | | |
| TECH 3179 Cooperative Education | | |
| Total Hours | | 87 |

[^] Has prerequisite of satisfactory score on ALEKS exam or subsequent remediation.

[@]This course meets the Bachelor of Science degree undergraduate research course requirement.

Construction Management, B.S.

Program Educational Objectives (PEOs):

1. Provide valuable input to complete construction activities of increasing complexity through the estimation and control of costs, coordination of materials and subcontractor scheduling, and supervising the safe completion of quality installations.
2. Continue to learn via company mentors, professional organization engagement, continuing education, employer-based training programs or other developmental opportunities to take on increasing responsibilities in a safety conscious industry.
3. Foster a sense of professionalism and self-assurance that enables graduates to become informed and participating citizens, emphasizing ethics, civic duty, and social responsibility.
4. Maximize resources efficiency and with a sense of urgency through the judicious procurement and management of labor, materials and equipment to satisfy a company's need for profitability.

Student Learning Outcomes (SLOs):

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;
2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

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3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
5. an ability to function effectively as a member as well as a leader on technical teams.

Construction Management, B.S.

This is a sample plan of study with a suggested sequencing of classes for the major. University electives may be applied to earn additional academic majors, minors, or certificates. Students should regularly meet with their academic advisor to plan their specific semester schedule to include UNIFI/General Education program and/or university elective hours required.

| Course | Title | Hour |
|---|---|-----------|
| Freshman | | |
| Fall | | |
| UNIFI/General Education or University Electives | | 3 |
| PHYSICS 1511 | General Physics I | 4 |
| ENGR 1000 | Introduction to Engineering & Professional Practice | 3 |
| TECH CM 1000 | Fundamentals of Construction Management Materials & Methods | 3 |
| TECH CM 1050 | Construction Safety | 3 |
| Hours | | 16 |
| Spring | | |
| UNIFI/General Education or University Electives | | 3 |
| MATH 1150 | Calculus for Technology | 4 |
| PHIL 1560 | Science, Technology, and Ethics (STE) | 3 |
| TECH CM 1100 | Construction Documents | 3 |
| ECON 1031 | Introduction to Business Economics | 3 |
| Hours | | 16 |
| Sophomore | | |
| Fall | | |
| CHEM 1020 | Chemical Technology | 4 |
| TECH CM 1016 | Computer Aided Design and Drafting | 2 |
| TECH CM 2000 | Land, Route, and Construction Surveying | 3 |
| TECH CM 2200 | Construction Project Management | 3 |
| ENGR 2080 | Statics | 2 |
| Hours | | 14 |
| Spring | | |
| UNIFI/General Education or University Electives | | 6 |
| STAT 1772 | Introduction to Statistical Methods | 3 |
| ENGR 2180 | Strength of Materials | 2 |
| TECH CM 2050 | Construction Law | 3 |
| Hours | | 14 |
| Junior | | |
| Fall | | |
| UNIFI/General Education or University Electives | | 3 |
| TECH CM 2300 | Building Services | 3 |
| TECH CM 3000 | Heavy Construction Operations & Equipment | 3 |
| TECH CM 3050 | Construction Estimating | 3 |

| | | |
|---|---|------------|
| ACCT 2120 | Principles of Financial Accounting | 3 |
| Hours | | 15 |
| Spring | | |
| TECH 1015 | | |
| TECH CM 3150 | Construction Project Planning, Scheduling and Control | 3 |
| TECH CM 3300 | Pre Construction Management | 3 |
| ENGLISH 3772/5772 | Technical Writing for Engineering Technologists | 3 |
| MGMT 3100 | Legal and Social Environment of Business | 3 |
| Hours | | 12 |
| Senior | | |
| Fall | | |
| UNIFI/General Education or University Electives | | 12 |
| TECH CM 4200 | Structural Components of Construction | 3 |
| Hours | | 15 |
| Spring | | |
| TECH CM 4350 | Construction Company Operations & Management | 3 |
| ENGR 4500 | Senior Design | 3 |
| UNIFI/General Education or University Electives | | 9 |
| Hours | | 15 |
| Total Hours | | 117 |