

MAJOR IN CONSTRUCTION MANAGEMENT

The Construction Management major at CSU is one of the top-recognized programs in the nation. Since its inception in 1946, more than 6,000 students have graduated, many of them going on to become leaders in their field. The program is accredited by the American Council for Construction Education (<https://www.acce-hq.org/>).

Construction Management (CM) is the overall planning, coordination, and control of a project from inception to completion. The Construction Management major addresses issues related to the management of multiple project sites and the applications of resource management, schedule control, cost control, design, and other requirements of the construction process. Design elements concentrate on the relationship between the built environment and the comfort of its inhabitants, while safety education emphasizes the health of the individual worker.

A Construction Management major provides a strong foundation for professional careers in the construction industry. The curriculum integrates technology and innovative management systems with the basics of civil engineering, business and management, and the communication skills required to be successful in today's world. Coursework includes construction methods, estimating, scheduling, computer technologies, architectural principles, fundamentals of management and law, steel and concrete structures, and soils. The curriculum incorporates hands-on labs for most courses. This diverse program creates a broad range of career options for graduates.

Every student pursuing the Construction Management major will start as Pre-Construction Management (Pre-CM) and must meet the following entrance requirements before being fully admitted to the Construction Management major:

1. Earn a minimum 2.50 cumulative CSU GPA, and a 2.75 Pre-CM GPA.

- The Pre-CM GPA is calculated based on grades earned in the Pre-CM entrance requirement categories: Construction Management, Written Communication, and Mathematics as described below.

2. Construction Management requirement, must meet ALL:

- Complete CON 101 with a "B-" grade or better; or earned a "B-" grade or better in an approved transfer substitution course as reviewed and approved by the CM Curriculum Committee.
- Complete CON 132 with a "C" grade or better.
- Complete CON 151 with a "C" grade or better.

3. Written Communication requirement, must meet ONE:

- Complete CO 130 with a "C" grade or better.
- Complete CO 150 with a "C" grade or better
- Complete AUCC Category 2: Advanced Writing (<https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/>) with a "C" grade or better.
- Complete HONR 192 with a "C" grade or better.
- Complete HONR 193 with a "C" grade or better

- Earned credit from concurrent enrollment or transfer coursework in CO 130, CO 150, or AUCC Category 2: Advanced Writing (<https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/>) with a grade of "C" or better.

- Earned credit for CO 130 or CO 150 from placement exam, or AP score of 3 or higher.

4. Mathematics requirement, must meet ONE:

- Complete MATH 125 with a "C" grade or better.
- Complete MATH 127 with a "C" grade or better
- Complete MATH 160 with a grade of "C" or better
- Earned credit from concurrent enrollment or transfer coursework in MATH 125, MATH 127, MATH 160, or other higher level mathematics course that has MATH 125 as a prerequisite, with a grade of "C" or better.
- Place out of, or earn credit for, MATH 125 or higher-level math on the Math Placement Tool, CLEP, or AP exam.

Once a student has met the minimum requirements listed above, they will be reviewed to proceed in the Construction Management major. Since the major does have controlled enrollment, students meeting the above minimum requirements are admitted based on their overall academic performance and space availability.

During their academic career, Construction Management students are required to obtain an internship (full-time structured work experience) position with any one of a variety of construction companies and organizations. Our Phelps Placement Office (<https://www.chhs.colostate.edu/cm/careers-internships-and-recruiting/>) assists current and graduating students, as well as alumni.

Learning Objectives

Students will develop and demonstrate:

- Professional, analytical, and problem-solving skills related to the career requirements in construction management
- Strong professional communication skills with an emphasis on written, graphic, and verbal skills related to the career requirements in construction management
- Technical proficiency in the following construction management areas: design/engineering, management, materials, methods, estimating, scheduling, safety, surveying, and project administration

The Construction Management undergraduate program is accredited by the American Council for Construction Education (ACCE) (<https://www.acce-hq.org/>) and satisfies the requirements of ACCE's mandated Student Learning Outcomes as listed below:

1. Create written communications appropriate to the construction discipline.
2. Create oral presentations appropriate to the construction discipline.
3. Create a construction project safety plan.
4. Create construction project cost estimates.
5. Create construction project schedules.
6. Analyze professional decisions based on ethical principles.

7. Analyze methods, materials, and equipment used to construct projects.
8. Apply electronic-based technology to manage the construction process.
9. Apply basic surveying techniques for construction layout and control.
10. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
11. Understand construction accounting and cost control.
12. Understand construction quality assurance and control.
13. Understand construction project control processes.
14. Understand the legal implications of contract, common, and regulatory law to manage a construction project.
15. Understand the basic principles of sustainable construction.
16. Understand the basic principles of structural behavior.
17. Understand the basic principles of HVAC, electrical, and plumbing systems.

Potential Occupations

The construction industry has become a highly technical industry marked by continuous and dramatic change. There is a continued demand for capable and highly trained construction management professionals who can adapt and become effective leaders in the field.

Students benefit from Construction Management's robust in-house intern and job search assistance and counseling. The Department of Construction Management's strong ties to industry and the high demand of the field result in the Construction Management major consistently showing one of CSU's highest placement rates and entry-level salaries of all graduating students.

Services provided by the Phelps Placement Office (<https://www.chhs.colostate.edu/cm/careers-internships-and-recruiting/>) include:

- Construction industry career fair hosted each semester
- On-campus interviews and information sessions
- Individual career counseling and assessment
- Job and internship search strategies
- Resume and business correspondence resources
- Year-round intern and job postings

Entry-level occupations include, but are not limited to: field engineer, assistant estimator, project scheduler, cost control engineer, safety engineer, project supervisor, project coordinator, quality assurance specialist, project engineer, assistant project manager, and assistant superintendent. Recruiting Industries include Commercial, Heavy Civil and Heavy Highway, Industrial and Utility, Mechanical and Electrical, Project Controls and Consulting, Residential Development, Specialty Contracting, and Transportation.

Students may consider simultaneously completing the requirements for a minor in Business Administration. Several of the courses required for the minor in Business Administration are also required for the major in Construction Management curriculum.

Learn more about the Construction Management major on the Department of Construction Management website (<https://www.chhs.colostate.edu/cm/programs-and-degrees/b-s-in-construction-management/>).