

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.

Construction management 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.

The Construction Management major is controlled, and all students admitted to CSU or seeking to change their major must first be designated as pre-construction management. The minimum criteria for the Construction Management major are:

- Complete a minimum of 15 credits at CSU
- Earn a minimum 2.750 cumulative CSU GPA
- Complete CON 101 with a "B" grade or better
- Complete CO 150 with a "B" grade or better
- Complete MATH 125 with a "C" grade or better

Once a student has met the minimum requirements listed above, they are eligible to apply to the Construction Management program. Since the Construction Management 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 Outcomes

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) 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 construction documents for the planning and management of construction processes.
8. Analyze the methods, materials, and equipment used to construct projects.
9. Apply construction management skills as a member of a multidisciplinary team.
10. Apply electronic-based technology to manage the construction process.
11. Apply basic surveying techniques for construction layout and control.
12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
13. Understand construction risk management.
14. Understand construction accounting and cost control.
15. Understand construction quality assurance and control.
16. Understand construction project control processes.
17. Understand the legal implications of the contract, common, and regulatory law to manage a construction project.
18. Understand the basic principles of sustainable construction.
19. Understand the basic principles of structural behavior.
20. Understand the basic principles of mechanical, electrical, and piping 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.

The Construction Management department prides itself on its in-house intern and job search assistance and counseling. Construction Management continues to boast one of the highest placement rates and entry-level salaries of all majors.

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

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- 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/>).