

MASTER OF SCIENCE IN CONSTRUCTION MANAGEMENT, PLAN B

The Department of Construction Management (<https://www.chhs.colostate.edu/cm/>) offers graduate study leading to the Master of Science degree. The graduate program provides an environment that supports graduate students in their development of knowledge necessary to enhance professional practice and apply research that addresses industry challenges and impact organizations in an emerging global economy. The master's program is an advanced curriculum designed to allow students to tailor a portion of the requirements to meet individual interests and goals.

The Department of Construction Management at CSU is a Science, Technology, Engineering, and Mathematics (STEM) program.

Our faculty members pursue research opportunities by maintaining a close association with the needs of the regional, national, and global Architecture/Engineering/Construction industry. In pursuing this research, the faculty has identified core research areas that span research, teaching, and outreach activities and provide a common ground for interaction between faculty and students. As the demands of the industry change over time, these research areas may evolve and additional areas may be established.

Current research areas include:

- Construction Education and Workforce Development
- Construction Technology (e.g. Virtual Design and Construction)
- Infrastructure Systems
- Project Delivery and Management
- Sustainability and Resilience

The learning outcomes of this program are:

1. Students will identify research problem(s), develop research question(s), design research methodologies, collect and analyze data, and interpret research results as components of scientific research.
2. Students will develop critical thinking skills needed to conceive, develop, test, and refine scientific ideas and hypotheses.
3. Students will communicate the results of their original research in a clear and well-organized manner both in written (proposal and professional paper) and verbal (professional paper and oral defense) format.
4. Students will write manuscript(s) for submission to a refereed scientific journal or a conference based on their research.
5. Students will develop expertise in one or more fields of construction management at which the student can successfully function in the profession (either academia or industry).

Each construction management graduate student must complete a final project of professional quality to demonstrate their capability in their area of interest and readiness for professional practice. The final research project is original work, involving a substantial degree of independent research and analysis. The research project results are presented as either a Thesis (Plan A) or Professional Research Paper (Plan B). Each student will work with their advisor to determine if a thesis or a professional paper is more appropriate. Each graduate student is

required to submit an article to a journal or proceedings approved by the advisor prior to graduation.

Students who want to develop technical proficiency in a particular area or emphasis may choose Plan B. Professional research paper is not held to the same standards for replicability of the research methodology used for a thesis. Results from a professional paper may be directed toward providing a solution to a specific applied problem for a small audience. There is an expectation that the professional paper could still be published, but the outlets would likely be different than those of a thesis. A minimum of 30 upper-division credits are required for Plan B students.

The goal of the program is to provide graduate students with skills related to advance construction management problem-solving. To attain this goal, the CM department encourages students to perform research that contributes to industry practice or the broader construction knowledge.

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

Requirements Effective Fall 2019

Code	Title	Credits
Core Requirements - Required of All Students		
CON 502	Research in Construction Management I	3
CON 503	Research in Construction Management II	3
CON 511	Project Procurement and Preconstruction	3
CON 512	Post-Award Construction Management	3
CON 521	Sustainable Building & Infrastructure Systems	3
CON 698	Research	3
Electives ¹		12
Program Total Credits:		30

A minimum of 30 credits are required to complete this program.

¹ With approval by advisor. A minimum of two CON graduate elective courses are required (other than CON 695). A maximum of 3 credits of CON 695 are allowed.