The Construction Management (CM) program at CSU is one of the top-ranked programs in the nation. Since its inception in 1946, more than 5,000 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 CM 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.

Undergraduate Program

A major in Construction Management 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.

Graduate Program

The Department of Construction Management offers graduate study leading to the Master of Science degree. The focus of the department is on professional programs that successfully combine theory and application with a strong emphasis in applied management. The master’s program is an advanced curriculum designed to allow students to tailor a portion of the specialization requirements to meet individual interests and goals.

Undergraduate Major

- Major in Construction Management

Minor

- Minor in Construction Management

Graduate

Graduate Programs in Construction Management

The Department of Construction Management offers graduate study leading to the Master of Science degree. The focus of the department is on professional programs that successfully combine theory and application with a strong emphasis in applied management. The master’s program is an advanced curriculum designed to allow students to tailor a portion of the specialization requirements to meet individual interests and goals.

Each program can be individually tailored to meet the needs and interests of the student.

Students interested in graduate work should refer to the Graduate and Professional Bulletin and the Department of Construction Management (http://cm.chhs.colostate.edu).

Master's Programs

- Master of Science in Construction Management, Plan A
- Master of Science in Construction Management, Plan B

Courses

Construction Management (CON)

CON 101 Introduction to Construction Management Credits: 3 (3-0-0)
Course Description: Introduction to the construction industry; including methods, practices, trends, careers, and constituencies involved in the design and construction process.
Prerequisite: None.
Registration Information: Pre-Construction Management Majors and Construction Management Majors and Minors Only.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CON 131 Graphic Communications for Construction Credits: 2 (0-4-0)
Course Description: Reading technical drawings, 2D/3D visualization, manual drafting techniques, introduction to design software applications.
Prerequisite: None.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.
CON 151 Construction Materials and Methods Credits: 3 (3-0-0)
Course Description: Materials and methods utilized in the construction of the built environment.
Prerequisite: None.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CON 251 Materials Testing and Processing Credits: 2 (1-2-0)
Course Description: Testing of construction materials for standards and quality. Conduct material tests, document and interpret results.
Prerequisite: CON 151 with a minimum grade of C.
Registration Information: Must register for lecture and laboratory. Construction Management Majors Only.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: Yes.

CON 261 Construction Surveying Credits: 3 (2-3-0)
Course Description: Surveying fundamentals related to construction: building layout, measurement procedures, vertical controls, line and grade, surveying instrument operation.
Prerequisite: (CON 131 with a minimum grade of C or INTD 166) and (MATH 125 or MATH 160).
Registration Information: Must register for lecture and laboratory. Construction Management, Environmental Horticulture, and Landscape Architecture Majors only.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: Yes.

CON 265 Plan Reading and Quantity Survey Credits: 3 (2-2-0)
Course Description: Practice in construction document reading, interpretation and analysis for quantity surveying and material quantity organizing using industry-recognized methods including, but not limited to, a project manual-based work breakdown structure.
Prerequisite: CON 131 and CON 151.
Registration Information: Must register for lecture and laboratory. Required field trips.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CON 267 Construction Management Pre-Internship Credit: 1 (0-0-1)
Course Description: Skills and concepts related to successful internships within the construction management industry.
Prerequisite: CON 265 with a minimum grade of C.
Registration Information: Construction Management Majors Only.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CON 270 Introduction to Road Construction Credits: 3 (3-0-0)
Course Description: Steps necessary to construct a paved roadway from conception, land acquisition and finance through paving operations and trafficking.
Prerequisite: None.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CON 271 Course Fee: No.

CON 275 Course Fee: No.

CON 276 Course Fee: No.

CON 277 Course Fee: No.

CON 278 Course Fee: No.

CON 279 Course Fee: No.

CON 280 Course Fee: No.

CON 281 Course Fee: No.

CON 282 Course Fee: No.

CON 283 Course Fee: No.

CON 284 Course Fee: No.

CON 285 Course Fee: No.

CON 286 Course Fee: No.

CON 287 Course Fee: No.

CON 288 Course Fee: No.

CON 289 Course Fee: No.

CON 290 Course Fee: No.

CON 291 Course Fee: No.

CON 292 Course Fee: No.

CON 293 Course Fee: No.

CON 294 Course Fee: No.

CON 295 Course Fee: No.

CON 296 Course Fee: No.

CON 297 Course Fee: No.

CON 298 Course Fee: No.

CON 299 Course Fee: No.

CON 300 Course Fee: No.

CON 301 Course Fee: No.

CON 302 Course Fee: No.

CON 303 Course Fee: No.

CON 304 Course Fee: No.

CON 305 Course Fee: No.

CON 306 Course Fee: No.

CON 307 Course Fee: No.

CON 308 Course Fee: No.

CON 309 Course Fee: No.

CON 310 Course Fee: No.

CON 311 Course Fee: No.

CON 312 Course Fee: No.

CON 313 Course Fee: No.

CON 314 Course Fee: No.

CON 315 Course Fee: No.

CON 316 Course Fee: No.

CON 317 Safety Management Credits: 2 (2-0-0)
Course Description: Construction safety management, accident prevention, and hazard control. Federal, state, and local regulation compliance.
Prerequisite: None.
Registration Information: Construction Management majors and minors only.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CON 351 Construction Field Management Credits: 2 (1-2-0)
Course Description: Applications of materials and methods in construction; administrative and organizational planning for construction field practice.
Prerequisite: CON 251, may be taken concurrently and CON 317, may be taken concurrently.
Registration Information: Must register for lecture and laboratory. Construction Management majors only.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: Yes.

CON 358 Course Fee: No.

CON 365 Electrical Systems in Construction Credits: 3 (2-2-0)
Course Description: Electrical terminology, theory, components, systems, and applications within the construction industry.
Prerequisite: CON 265 with a minimum grade of C.
Registration Information: Construction Management Majors Only.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CON 366 Course Fee: No.

CON 367 Course Fee: No.

CON 368 Course Fee: No.

CON 369 Course Fee: No.

CON 370 Course Fee: No.

CON 371 Course Fee: No.

CON 372 Course Fee: No.

CON 373 Course Fee: No.

CON 374 Course Fee: No.

CON 375 Course Fee: No.

CON 376 Course Fee: No.

CON 377 Course Fee: No.

CON 378 Course Fee: No.

CON 379 Course Fee: No.
CON 366  Construction Equipment and Methods  Credits: 3 (2-2-0)  
Course Description: Equipment and methods used in heavy-highway, heavy-civil and utility construction. Equipment and crew productivity. Equipment ownership and operating costs. Estimating, planning and directing heavy construction operations.  
Prerequisite: CON 265 with a minimum grade of C.  
Registration Information: Must register for lecture and laboratory. Construction Management majors and minors only.  
Terms Offered: Fall, Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  
CON 367  Construction Contracts/Project Administration  Credits: 3 (3-0-0)  
Course Description: Construction contracts and clauses, stakeholder responsibilities, disputes, resolution methods and risk. Utilization of construction administration documents, systems and procedures to meet project requirements.  
Prerequisite: CON 351, may be taken concurrently.  
Registration Information: Construction management majors and minors only.  
Terms Offered: Fall, Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  
CON 370  Asphalt Pavement Materials and Construction  Credits: 3 (2-2-0)  
Course Description: Constituents of asphalt pavements; manufacture of asphalt cement, emulsions, and cutbacks; material properties and behavior.  
Prerequisite: None.  
Registration Information: Must register for lecture and laboratory.  
Terms Offered: Fall, Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  
CON 371  Mechanical and Plumbing Systems  Credits: 3 (3-0-0)  
Course Description: Heating, ventilation, air conditioning, plumbing, and fire suppression in the built environment.  
Prerequisite: CON 360, may be taken concurrently or INTD 276, may be taken concurrently.  
Registration Information: Interior Design and Construction Management Majors Only.  
Terms Offered: Fall, Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  
CON 382A  Study Abroad: European Perspectives  Credits: 3 (1-0-2)  
Course Description: A study of the physical resources and the human behaviors, which inform design and construction. Exploration of infrastructure and its relationship to resources, materials, and the culture in which it exists. Review of international perspectives of the built environment of Europe, past and present trends, and what the future holds. Survey of construction over time and trends in the preservation of existing infrastructure.  
Prerequisite: None.  
Registration Information: Sophomore standing. This is a partial semester course. Required field trips. You must apply through the Office of International Programs.  
Term Offered: Summer.  
Grade Mode: Traditional.  
Special Course Fee: No.  
CON 384  Supervised College Teaching  Credits: Var[1-5] (0-0-0)  
Course Description:  
Prerequisite: None.  
Registration Information: A maximum of 10 combined credits for all 384 and 484 courses are counted towards graduation requirements.  
Terms Offered: Fall, Spring, Summer.  
Grade Mode: Instructor Option.  
Special Course Fee: No.  
CON 450  Travel Abroad-Sustainable Building  Credits: 3 (3-0-0)  
Also Offered As: INTD 450.  
Course Description: Major components of sustainable design and construction, energy, healthy buildings, natural resources and other environmental issues.  
Prerequisite: None.  
Registration Information: Credit not allowed for both CON 450 and INTD 450.  
Term Offered: Summer.  
Grade Mode: Traditional.  
Special Course Fee: No.  
CON 459  Structures II  Credits: 4 (4-0-0)  
Course Description: Design of formwork, falsework, and shoring.  
Prerequisite: CON 359.  
Terms Offered: Fall, Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  
CON 461  Construction Scheduling and Cost Control  Credits: 3 (2-2-0)  
Course Description: Strategies and techniques for efficient scheduling of project activities and control of project costs; emphasis on Critical Path Method.  
Prerequisite: CON 365.  
Registration Information: Construction management majors and minors only. Must register for lecture and laboratory.  
Terms Offered: Fall, Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  
CON 462  Financial Management for Construction  Credits: 3 (3-0-0)  
Course Description: Financial statements, financial ratios, applications of engineering economy, cash flow analysis, construction financing, and cost information systems.  
Prerequisite: (ACT 205 or ACT 210, may be taken concurrently) and (MGT 305 or MGT 320).  
Terms Offered: Fall, Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  
CON 464  Construction Leadership  Credits: 3 (1-0-2)  
Course Description: Leading projects and people in a construction business and application of skills in a construction-based community service learning project.  
Prerequisite: CON 365 and CON 367, may be taken concurrently.  
Registration Information: Must register for lecture and recitation. Written consent of instructor.  
Term Offered: Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.
CON 465  Construction Management Professional Practice  Credits: 3 (1-0-2)
Course Description: Professional practice using an understanding of the contractual and working relationships among all participants in the design/construction process.
Prerequisite: (CON 461, may be taken concurrently) and (CON 487A or CON 487E or CON 487B).
Registration Information: Construction management majors only. Must register for lecture and recitation.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CON 469  Soils Engineering for Construction Managers  Credits: 3 (2-0-1)
Course Description: Soil mechanics, foundation engineering, and foundation construction.
Prerequisite: CON 359.
Registration Information: Must register for lecture and recitation.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CON 471  Project Management for Mechanical Systems  Credits: 3 (3-0-0)
Course Description: Fundamental principles of mechanical systems. Presentation and practice of management principles relevant to mechanical projects.
Prerequisite: CON 371 and CON 365, may be taken concurrently.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CON 476  Sustainable Practice-Design and Construction  Credits: 3 (3-0-0)
Course Description: Major components of sustainable design/ construction: energy, healthy buildings, cultural, natural resources, use, other environment/economic issues.
Prerequisite: None.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CON 477  Residential Aging-in-Place and Green Building  Credits: 3 (3-0-0)
Course Description: Aging-in-place and green building aspects of the residential construction market.
Prerequisite: CON 265.
Restriction: .
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CON 487A  Internship: Construction Management I  Credits: 6 (0-0-18)
Course Description:
Prerequisite: CON 267 and CON 367.
Registration Information: OSHA 10-hour construction safety card.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Traditional.
Special Course Fee: No.

CON 487B  Internship: Construction Management II  Credits: 3 (0-0-9)
Course Description:
Prerequisite: CON 267 and CON 367.
Registration Information: OSHA 10-hour construction safety card; 500 hours documented work experience.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Traditional.
Special Course Fee: No.

CON 495  Independent Study-Construction Management  Credits: Var[1-18] (0-0-0)
Course Description:
Prerequisite: None.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CON 496  Group Study-Construction Management  Credits: Var[1-9] (0-0-0)
Course Description:
Prerequisite: None.
Registration Information: Maximum of 9 credits allowed in course.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CON 502  Research in Construction Management I  Credits: 3 (2-0-1)
Course Description: Research, discuss, and present current issues and trends in the construction industry related to business, management, engineering, and technology.
Prerequisite: None.
Registration Information: Must register for lecture and recitation. Credit not allowed for both CON 502 and CON 562.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CON 503  Research in Construction Management II  Credits: 3 (3-0-0)
Course Description: Models and methods of disciplined inquiry used in diverse application-based organizations. Preparation to use disciplined inquiry methods to solve applied problems in construction management or related fields. Topics include problem/topic selection, writing research questions and objectives, literature reviews, selection of research methods, data collection and analysis, and conclusions and implications.
Prerequisite: CON 502.
Registration Information: Credit not allowed for both CON 503 and CON 500.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CON 511  Project Procurement and Preconstruction  Credits: 3 (2-0-1)
Course Description: Advanced project procurement procedures with a focus on early design phase planning applications and preconstruction management techniques.
Prerequisite: CON 461, may be taken concurrently.
Registration Information: Must register for lecture and recitation. Credit not allowed for both CON 511 and CON 566.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.
CON 512 Post-Award Construction Management  Credits: 3 (2-0-1)  
Course Description: Advanced topics related to post-award construction management issues with a focus on multiple project controls and project risk management.  
Prerequisite: CON 461.  
Registration Information: Must register for lecture and recitation. Credit not allowed for both CON 512 and CON 560.  
Term Offered: Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  

CON 521 Sustainable Building & Infrastructure Systems  Credits: 3 (2-0-1)  
Course Description: Issues and state-of-the-art resources needed to construct, remodel/retrofit, operate and maintain the built environment (buildings and infrastructure). Specifically, resources will include major materials, components and technologies, as well as energy and water resources are needed in the different life-cycle phases of the building or infrastructure project.  
Prerequisite: None.  
Registration Information: Must register for lecture and recitation. Credit not allowed for both CON 521 and CON 576.  
Term Offered: Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  

CON 561 Applied Productivity Improvement  Credits: 3 (3-0-0)  
Course Description: Existing and emerging tools for productivity enhancement in project and production environment.  
Prerequisite: None.  
Registration Information: Admission to the construction management master’s program.  
Term Offered: Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  

CON 565 Legal Aspects of Construction Process  Credits: 3 (3-0-0)  
Course Description: Common points of dispute; methods of avoiding disputes among owner, architect, engineer, and contractor.  
Prerequisite: None.  
Registration Information: Admission to the construction management master’s program.  
Term Offered: Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  

CON 568 Construction Industry Institute Practices  Credits: 3 (3-0-0)  
Course Description: Senior executives from the Construction Industry Institute (CII) present best practices developed by CII over the last 25 years.  
Prerequisite: CON 367.  
Term Offered: Fall.  
Grade Mode: Traditional.  
Special Course Fee: No.  

CON 569 Regulatory Impact on Construction  Credits: 3 (3-0-0)  
Course Description: Role government plays in the design and construction of the built environment.  
Prerequisite: None.  
Registration Information: Admission to the construction management master’s program.  
Term Offered: Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  

CON 571 Facility Planning and Management  Credits: 3 (3-0-0)  
Course Description: Planning, organizing and managing large educational and/or commercial facilities.  
Prerequisite: None.  
Registration Information: Admission to the construction management master’s program.  
Term Offered: Spring.  
Grade Mode: Traditional.  
Special Course Fee: No.  

CON 590 Workshop  Credits: Var[1-18] (0-0-0)  
Course Description:  
Prerequisite: None.  
Terms Offered: Fall, Spring, Summer.  
Grade Mode: Instructor Option.  
Special Course Fee: No.  

CON 592 Seminar  Credits: Var[1-18] (0-0-0)  
Course Description:  
Prerequisite: None.  
Terms Offered: Fall, Spring, Summer.  
Grade Mode: Instructor Option.  
Special Course Fee: No.  

CON 684 Supervised College Teaching  Credits: Var[1-18] (0-0-0)  
Course Description:  
Prerequisite: None.  
Restriction: Must be a: Graduate, Professional.  
Terms Offered: Fall, Spring, Summer.  
Grade Mode: Instructor Option.  
Special Course Fee: No.  

CON 687 Internship  Credits: Var[1-6] (0-0-0)  
Course Description:  
Prerequisite: None.  
Restriction: Must be a: Graduate, Professional.  
Registration Information: Maximum of 6 credits allowed in course.  
Terms Offered: Fall, Spring, Summer.  
Grade Mode: Instructor Option.  
Special Course Fee: No.  

CON 695 Independent Study  Credits: Var[1-18] (0-0-0)  
Course Description:  
Prerequisite: None.  
Restriction: Must be a: Graduate, Professional.  
Terms Offered: Fall, Spring, Summer.  
Grade Mode: Instructor Option.  
Special Course Fee: No.  

CON 696 Group Study  Credits: Var[1-18] (0-0-0)  
Course Description:  
Prerequisite: None.  
Restriction: Must be a: Graduate, Professional.  
Terms Offered: Fall, Spring, Summer.  
Grade Mode: Instructor Option.  
Special Course Fee: No.  

CON 698 Research  Credits: Var[1-18] (0-0-0)  
Course Description:  
Prerequisite: None.  
Restriction: Must be a: Graduate, Professional.  
Terms Offered: Fall, Spring, Summer.  
Grade Mode: Instructor Option.  
Special Course Fee: No.
CON 699 Thesis  Credits: Var[1-6]  (0-0-0)
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.