



MASTER OF SCIENCE IN Construction Management

Online or On Campus (Face to Face)

Department of
Construction Management
College of Engineering
and Technology

www.ecu.edu/cet/construction



Master of Science in Construction Management (MSCM)

Most working professionals have multiple demands on their time, and trying to fit a graduate degree program into an already demanding schedule can be daunting. The MSCM program at East Carolina University® recognizes these challenges. Our program is designed to accommodate professionals' needs and to provide an exemplary learning opportunity. Each class is taught by an instructor certified in providing graduate-level education. Whether students attend face-to-face lectures on campus or participate in the same lectures online, each class offers interaction with the instructor and fellow students. Guest speakers are frequently invited to join the class, providing industry insight and actual points of view regarding the topics under discussion.

For admission to the STEM-designated MSCM program, students must have a Bachelor of Science degree in a construction- or engineering-related discipline such as civil engineering. Academic degrees in closely related fields such as architecture, real estate, business, finance, accounting, management or marketing will also be considered for admission. Other requirements include the following:

- Cumulative GPA (CGPA) of at least 2.7 on a 4.0 scale
- Two letters of recommendation
- Statement of purpose or intent
- Detailed curriculum vitae (CV) or resume

If an applicant's cumulative GPA is less than 2.7, the applicant may be admitted on a conditional basis. Conditional admission requires a student to maintain a 3.0 cumulative GPA in the first nine (9) graduate credits taken in the MSCM program.

Course and Prerequisite Requirements

Students with a Bachelor of Science degree in construction management, construction engineering or construction technology must complete 30 graduate credits to receive their MSCM degree.

Students with a Bachelor of Science degree in an engineering discipline, business, finance, accounting, management or marketing must demonstrate proficiency in select prerequisite courses at the undergraduate level. See the list below. Prerequisite courses (or equivalent) can be taken at ECU or at a community college or university of your choice.

- Construction Project Management
- Construction Documents and Analysis (Blueprint Reading)
- Construction Materials and Methods
- Construction Equipment Management
- Construction Estimating
- Construction Scheduling

Prerequisite courses can also be taken online at sites such as www.constructionclasses.com. Official transcripts of prerequisite coursework will be required for admission and/or graduation. While exemptions from prerequisite courses can be granted by the graduate program director and/or the chair of the department, students must complete 30 graduate credits to obtain their degrees.

If you are interested in pursuing a Master of Science in construction management degree at ECU or would like more information, we encourage you to contact:

Graduate Program Director

Department of Construction Management
346 Rawl Building
Mail Stop 307
East Carolina University
Greenville, NC 27858-4353

www.ecu.edu/cet/construction

Phone: 252-328-6490

Fax: 252-737-1523

cmginfo@ecu.edu

East Carolina University is committed to equality of opportunity and prohibits unlawful discrimination based on the following protected classes: race/ethnicity, color, genetic information, national origin, religion, sex (including pregnancy and pregnancy-related conditions), sexual orientation, gender identity, age, disability, political affiliation and veteran status.

Course Descriptions

CMGT 6600 Research Methods for Construction (3 s.h.): Methods of critically analyzing project data associated with construction design, process application and project control problems and formulating logical solutions through a variety of documentation sources.

CMGT 6605 Decision and Risk Analysis in Construction (3 s.h.): Quantitative and qualitative techniques used in the construction industry to assist with decision making. Provides risk analysis tools and techniques to manage the outcome of possible and all likely risks such as financial, material, labor, technology, equipment, time and economic risks associated with construction projects.

CMGT 6610 Advanced Computer Applications in Construction (3 s.h.): P/C: CMGT 6600. Understanding emerging computing and information technologies in construction management and engineering.

CMGT 6615 Productivity Improvement in Construction and Engineering (3 s.h.): Overview of productivity improvement programs and techniques utilized within the construction industry, with an emphasis on data analysis and project management.

CMGT 6625 Residential Construction Trends (3 s.h.): Acceptance into the construction management master's degree or residential construction management certificate. Overview of the residential construction industry encompassing history of home types, development, technology and trends from past to present.

CMGT 6630 Advanced Applications in Construction Scheduling (3 s.h.): Managing construction scheduling, project control, and strategic planning and analysis of single and multiple projects.

CMGT 6635 Residential Project Risk Management (3 s.h.): Managing risk of construction projects via categorization, assessment techniques, minimization strategies and contingency planning for residential projects small to large in scale of construction.

CMGT 6640 Residential Land Use Management and Design (3 s.h.): Principles and practice of residential site planning and infrastructure design for large and small urban developments, with relevant aspects of land use theory and implications for site planning and design.

CMGT 6645 Residential Land Use Management and Design (3 s.h.): Principles and practice of residential site planning and infrastructure design for large and small urban developments, with relevant aspects of land use theory and implications for site planning and design.

CMGT 6650 Global Management of Construction (3 s.h.): P: CMGT 6600. Special problems and procedures related to international construction projects; impact of social, cultural, legal and financial aspects of international contracting; logistics of labor, materials and equipment in a foreign environment.

CMGT 6655 Residential Sustainability (3 s.h.): Acceptance into the MSCM program. Introduction to the standards and considerations for sustainable residential construction of homes.

CMGT 6660 Quality Control Systems (3 s.h.): P: CMTG 6600. Developing and implementing methods of controlling and evaluating quality control in all processes of construction.

CMGT 6662 Legal Implications of Design and Construction (3 s.h.): Risk liability in construction industry, contract case law, tort law, negligence, products liability, and role of liability insurance and professional liability of designers and building contractors.

CMGT 6664 Advanced Cost Estimating/Cost Analysis (3 s.h.): Incorporates emerging estimating and cost control measures in construction industry. Conceptual and definitive estimating, cost developing, cost analysis methods, project delivery implications, international work implications, and computer applications and modeling.

CMGT 6675 Green Building and Sustainable Construction (3 s.h.): Design and construction of high-performance green buildings.

CMGT 6680 Ethical Practices in Construction Profession (3 s.h.): Nature and merits of professional ethics on international construction projects. Use of key leadership concepts and skills to form and effectively lead multicultural teams on international projects.

CMGT 6685 Construction Safety Management (3 s.h.): Extensive overview of Occupational Safety and Health Administration (OSHA) standards and issues related to construction safety. Topics include accident causation theories, emergency response plans, safety programs and policies.

CMGT 6690 Lean Construction (3 s.h.): Introduction to lean construction principles and methods for improving the delivery of design services and facility construction projects. Application of lean tools and techniques to the construction project environment for the improvement of processes and products, as well as stakeholder satisfaction.

CMGT 6700 Research Capstone Seminar (3 s.h.): Provides graduate students in construction management an opportunity to conduct independent study and research for the non-thesis master's degree program.

CMGT 7000 Thesis (1-6 s.h.)

Who Should Pursue This Degree?

Prospective students with a Bachelor of Science degree in construction management or a related field will benefit from the Master of Science in construction management (MSCM) degree. Disciplines such as civil engineering, architecture, real estate, business, finance, management, marketing and accounting also translate into our program. For recent graduates, the MSCM program provides advanced knowledge and critical-thinking skills needed to be leaders and innovators in an increasingly globalized construction industry.

For midcareer and experienced professionals, this graduate degree will provide even greater access to knowledge that is essential to excel in today's fast-paced and ever-changing local and international construction arena. Career advancing topics in the MSCM program include risk management, advanced scheduling and estimating techniques, globalization, sustainable construction, productivity, quality, profitability and best practices.

Faculty

Our highly qualified and experienced faculty members deliver instruction on state-of-the-art construction tools, techniques and systems gained through applied research and consulting projects. Instruction is augmented by guest speakers, group projects and discussions, and input from our Industry Advisory Board.

S.H.: Semester hours

P: Prerequisite

P/C: Prerequisite or Corequisite