CONSTRUCTION MANAGEMENT (BS)

Degree: Bachelor of Science
Major: Construction Management
Program Code: 3180

About This Major . . .

Construction managers plan, direct, and coordinate a wide variety of construction projects, including the building of all types of residential, commercial and industrial structures, roads, and bridges. They are salaried or self-employed managers who oversee construction supervisors and workers. Construction managers coordinate and supervise the construction process from the conceptual development stage through final construction, insuring the project is completed on time and within budget. They are also responsible for the safety of the work environment. Graduates of the Construction Management program will possess an OSHA 10-hour safety card upon graduation.

Potential majors must be comfortable with mathematics, technical instruction, physical science, computers, and software programs. They should work well under pressure and have good oral and written communication skills. They are managers of processes and people and must excel in both technical and human interaction skills.

For more information on what you can do with this major, visit Career Services’ What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

a. Develop knowledge and skills to observe, analyze, make inferences, communicate and problem solve. (Critical Thinking)

b. Create professional Construction Management work products and presentations, independently and collaboratively. (Specialized Knowledge)

c. Communicate clearly, appropriately, and persuasively to the identified audience, both orally and in writing. (Communication Fluency)

d. Analyze construction documents, materials, means and methods, and other communications critically, reason logically, and apply analysis methods correctly to develop appropriate conclusions. (Quantitative Fluency)

e. Utilize current industry trends and technology that facilitate efficient workflows. (Information Literacy, Specialized Knowledge)

f. Identify, formulate and solve construction related problems by applying knowledge of mathematics, science, innovation, construction materials, means and methods. (Specialized Knowledge, Quantitative Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program’s requirements.

To print or save an overview of this program’s information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select “Print Options.” This will give you the options to either “Send Page to Printer” or “Download PDF of This Page.” The “Download PDF of This Page” option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL 111</td>
<td>English Composition I-GTCO1</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 112</td>
<td>English Composition II-GTCO2</td>
<td>3</td>
</tr>
<tr>
<td>MATH 113</td>
<td>College Algebra-GTMA1 (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>History</td>
<td>Select one History course</td>
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</tbody>
</table>
Humanities
Select one Humanities course 3

Social and Behavioral Sciences
ECON 201 Principles of Macroeconomics-GTSS1 3
ECON 202 Principles of Microeconomics-GTSS1 3

Fine Arts
Select one Fine Arts course 3

Natural Sciences 3
PHYS 111 General Physics I-GTSC1 2 3
PHYS 111L General Physics I Laboratory-GTSC1 1
Select one Natural Sciences course 3

Total Semester Credit Hours 31

1 Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.
2 This is a 4 semester credit hour course. 3 credits apply to the Essential Learning requirements and 1 credit applies to general elective credit.
3 One course must include a lab.

Other Lower Division Requirements

Wellness Requirement
KINE 100 Health and Wellness 1
Select one Activity course 1

Essential Learning Capstone 1
ESSL 290 Maverick Milestone 3
ESSL 200 Essential Speech 1

Total Semester Credit Hours 6

1 Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses
(27 semester hours)

Code Title Semester Credit Hours
ACCT 201 Principles of Financial Accounting 3
STAT 200 Probability and Statistics-GTMA1 3
MATH 130 Trigonometry 3
CONC 101 Construction Safety and Regulations 3
CONC 116 Building Materials 3
CONC 161 Building Mechanical/Electrical 3
CONC 208 Construction Equipment 3
CONC 218 Surveying 3
CONC 228 Estimating and Cost Control 3

Total Semester Credit Hours 27

Program Specific Degree Requirements
(46 semester hours, must earn a “C” or better in each course)

Code Title Semester Credit Hours

Core Courses
BUGB 349 Legal Environment of Business 3
FINA 301 Managerial Finance 3
HRMA 371 Human Resource Management 1 3
CONM 234 Graphic Communication for Construction Management

Concentration Courses
CONM 181 Principles of Construction Management 3
CONM 316 Construction Materials and Methods 3
CONM 341 Estimating and Bidding for Vertical Construction 3
or CONM 342 Estimating and Bidding for Horizontal Construction

CONM 361 Advanced MEP Systems 3
CONM 362 Structure Analysis - Statics/Materials Strength 3
CONM 370 Managing the Regulatory Environment 3
or CONM 375 Sustainability in the Built Environment

CONM 380 Construction Project Management 3
CONM 462 Soil and Foundation Construction 3
CONM 462L Soil and Foundation Construction Laboratory 1
CONM 472 Construction Planning and Scheduling 3
CONM 475 Construction Company and Financial Management 3

Total Semester Credit Hours 43

Restricted Elective
Select one of the following: 3
CONM 485 Construction Management Issues
CONM 495 Independent Study
CONM 499 Construction Internship

Total Semester Credit Hours 3

1 MANG 201 is a potential prerequisite for HRMA 371.

General Electives
All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 10 semester hours, 1 hour must be upper division

Code Title Semester Credit Hours
MATH 113 College Algebra-GTMA1 1
PHYS 111 General Physics I-GTSC1 1
Select additional electives 8

Total Semester Credit Hours 10
Suggested Course Plan

First Year
Spring Semester
ENGL 111: English Composition I-GTCC1, 3
CONC 101: Construction Safety and Regulations, 3
CONC 116: Building Materials, 3
MATH 113: College Algebra-GTMA1, 4
CONM 181: Principles of Construction Management, 3
Semester Credit Hours 16

Spring Semester
Essential Learning - Humanities
ENGL 112: English Composition II-GTCC2, 3
CONC 201: Principles of Macroeconomics-GTSS1, 3
CONM 234: Graphic Communication for Construction Management, 3
CONC 228: Estimating and Cost Control, 3
PHYS 111 & 111L: General Physics I-GTSC1 and General Physics I Laboratory-GTSC1, 5
Semester Credit Hours 17

Second Year
Spring Semester
MATH 130: Trigonometry, 3
CONC 218: Surveying, 3
ECON 202: Principles of Microeconomics-GTSS1, 3
Essential Learning - Natural Science, 3
General Elective, 3
Semester Credit Hours 15

Fall Semester
CONM 362: Structure Analysis - Statics/Materials Strength, 3
CONM 316: Construction Materials and Methods, 3
CONM 341 or CONM 342: Estimating and Bidding for Vertical Construction or Estimating and Bidding for Horizontal Construction, 3
CONM 370 or CONM 375: Managing the Regulatory Environment or Sustainability in the Built Environment, 3
ESSL 290: Maverick Milestone, 3
ESSL 200: Essential Speech, 1
Semester Credit Hours 16

Fourth Year
Fall Semester
Essential Learning - Fine Arts, 3
Essential Learning - History, 3
CONM 472: Construction Planning and Scheduling, 3
FINA 301: Managerial Finance, 3
General Elective, 3
Semester Credit Hours 15

Spring Semester
CONM 462: Soil and Foundation Construction, 3
CONM 462L: Soil and Foundation Construction Laboratory, 1
CONM 475: Construction Company and Financial Management, 3
Restricted Elective 1
General Elective, 2
Semester Credit Hours 12
Total Semester Credit Hours 120

1 If student opts to take CONM 499, it should be planned between Junior and Senior years.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

• Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
• Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
• Submit the “Intent to Graduate” form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
• Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.