CONSTRUCTION MANAGEMENT, BS

Introduction
Please click here (http://catalog.ucdenver.edu/cu-denver/undergraduate/schools-colleges-departments/civil-engineering-design-computing/civil-engineering/) to see Civil Engineering department information.

Construction management professionals combine knowledge of innovative technologies, construction practices and business management to lead a variety of construction projects, from residential, commercial and industrial buildings to infrastructure projects such as roads, bridges and large facilities. Construction managers orchestrate construction projects over their full life-cycle, managing schedules, budgets, quality and safety.

The bachelor of science in construction management at CU Denver includes a solid foundation of construction engineering and management courses, engineering courses and courses from the Business School and College of Architecture and Planning. All students will complete a construction capstone design course. In addition, the program requires the student to complete at least 12 weeks of a full-time internship with an architect, engineer, contractor industry or government agency.

Program Delivery
• This is an on-campus program.

Declaring This Major
• Click here (http://catalog.ucdenver.edu/cu-denver/undergraduate/schools-colleges-departments/civil-engineering-design-computing/#policies) to go to information about declaring a major.

General Requirements
To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

• CU Denver General Graduation Requirements (http://catalog.ucdenver.edu/cu-denver/undergraduate/graduation/)
• CU Denver Core Curriculum (http://catalog.ucdenver.edu/cu-denver/undergraduate/graduation-undergraduate-core-requirements/)
• College of Engineering, Design and Computing Graduation Requirements (http://catalog.ucdenver.edu/cu-denver/undergraduate/schools-colleges-departments/civil-engineering-design-computing/#graduationrequirementstext)
• Click here (http://catalog.ucdenver.edu/cu-denver/undergraduate/academic-policies-procedures/) for information about Academic Policies

Program Requirements
• Students must maintain a minimum 2.0 GPA in all courses applying to major requirements.
• All CEMT courses require a grade of C- or better.
• Students should consider pursuing a Business Fundamentals or Entrepreneurship minor.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMT 1000</td>
<td>Introduction to Construction Management</td>
<td>1</td>
</tr>
<tr>
<td>or CEMT 1067</td>
<td>Introduction to Civil Engineering</td>
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<tr>
<td>CEMT 2100</td>
<td>Construction Management Fundamentals</td>
<td>3</td>
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<tr>
<td>CEMT 2300</td>
<td>Heavy Civil Construction and Equipment</td>
<td>3</td>
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<tr>
<td>CEMT 3100</td>
<td>Field Engineering and Management</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 3210</td>
<td>Construction Materials and Methods</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 4067</td>
<td>Construction Senior Capstone</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 4232</td>
<td>Construction Planning and Control</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 4233</td>
<td>Construction Cost Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 4234</td>
<td>Sustainable Construction</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 4236</td>
<td>Project Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 4240</td>
<td>Building Information Modeling (BIM)</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 4242</td>
<td>Construction Safety</td>
<td>3</td>
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<tr>
<td>CEMT 4939</td>
<td>Internship (At least 3 months)</td>
<td>1</td>
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Business
BMIN 1000 Introduction to Business                          3
BLAW 3050 Business Law and Ethics                            3
Select three additional business courses from the following options:
BMIN 3001 Fundamentals of Management and Marketing           3
BMIN 3002 Fundamentals of Accounting and Finance             3
BMIN 3004 Principles of Strategic Management                 3
ENTP 3200 The Fundamentals of Entrepreneurship               3
ENTP 3230 Small Business Accounting and Finance              3
ENTP 3299 Build Your Business: Plan, Pitch, Launch          3
ACCT 2200 Financial Accounting and Financial Statement Analysis  3

Architectural
ARCH 3330 Building Systems I                                   3
ARCH 3340 Theory of Structures I                               3
ARCH 4340 Theory of Structures II                              3
ARCH 4440 Building Systems II                                  3

Engineering
CVEN 1025 Civil Engineering Graphics and Computer Aided Design 3

or MECH 1025 CAD and Graphics for Mechanical Engineering

CVEN 2214 Surveying for Engineering and Surveying Lab          2
& CVEN 2215

or CVEN 2221 Surveying for Construction and Engineering

ENGR 1200 or ARCH 1110 Fundamentals of Engineering Design Innovation 3

or Introduction to Architecture

ENGR 1100 Fundamentals of Computational Innovation              3

Math and Science
Select one of the following math courses:  \(4-6\)
- **MATH 1130**: Precalculus Mathematics
- **MATH 1401**: Calculus I
- **MATH 1110** & **MATH 1120**: College Algebra and College Trigonometry
- **PHYS 2010**: College Physics I
- **PHYS 2321**: Intro Experimental Phys Lab I

**Statistics**
Select one of the following:  \(3\)
- **CVEN 3611**: Engineering Statistics
- **MATH 2830**: Introductory Statistics
- **MATH 3800**: Probability and Statistics for Engineers
- **ELEC 3817**: Engineering Probability and Statistics
- **BANA 2010**: Business Statistics

**Electives**
Select 11 credits of elective courses in math, science, architecture, business, engineering, construction or technical communication:  \(11\)
- **ACCT 2200**: Financial Accounting and Financial Statement Analysis
- **ACCT 2220**: Managerial Accounting and Professional Issues
- **ARCH 1711**: Architectural Visualization I
- **ARCH 2230**: Architectural History I
- **BIOL 2010** & **BIOL 2011**: Organisms to Ecosystems (Gen Bio) and Organisms to Ecosystems Lab (Gen Bio)
- **BIOL 2020** & **BIOL 2021**: Molecules to Cells (Gen Bio) and Molecules to Cells Lab (Gen Bio)
- **COMM 2050**: Professional Presentations
- **CVEN 3401**: Introduction to Environmental Engineering
- **CVEN 3602**: Transportation Engineering
- **CVEN 4025**: Autocad Civil 3d & Advanced Civil Engineering Graphics
- **CVEN 4077**: Engineering Economy
- **ECON 3366**: Managerial Economics
- **ELEC 1510**: Digital Logic
- **ENGL 3154**: Technical Writing
- **ENGL 3170**: Business Writing
- **ENGR 1130**: Chemistry for Engineers
- **ENVS 3082**: Energy and the Environment
- **GEOG 1602**: Urban Studies and Planning
- **GEOG 4080**: Introduction to GIS
- **GEOG 3082**: Physical Geology: Surface Processes and Physical Geology: Surface Processes Laboratory
- **ISMG 2050**: Business Problem Solving Tools
- **LDAR 3601**: Intro to Landscape Arch: Engaging Designed Landscape
- **MECH 1045**: Manufacturing Processes Design
- **MECH 2024**: Introduction to Materials Science
- **SPAN 2110**: Second Year Spanish I
- **SPAN 2120**: Second Year Spanish II
- **SUST 3010**: Sustainability: Past, Present, and Future

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<tbody>
<tr>
<td>URPL 4000</td>
<td>Planning History and Theory</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>120-122</td>
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**Note**
Up to two 5000-level CEMT or CVEN courses may be applied to a civil engineering master’s degree.

To review the Degree Map for this program, please visit our website (https://www.ucdenver.edu/student/advising/undergraduate/degree-maps/cedc/).