CONSTRUCTION MANAGEMENT, BS

Introduction
Please click here (http://catalog.ucdenver.edu/cu-denver/undergraduate/schools-colleges-departments/college-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/college-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/college-engineering-design-computing/#graduation-requirementstext)
• 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>
<td></td>
</tr>
<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>
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<tr>
<td>CEMT 3231</td>
<td>Construction Materials and Methods</td>
<td>3</td>
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<tr>
<td>CEMT 4067</td>
<td>Construction Senior Capstone</td>
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<tr>
<td>CEMT 4232</td>
<td>Construction Planning and Control</td>
<td>3</td>
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<tr>
<td>CEMT 4233</td>
<td>Construction Cost Estimating</td>
<td>3</td>
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<tr>
<td>CEMT 4234</td>
<td>Sustainable Construction</td>
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<tr>
<td>CEMT 4236</td>
<td>Project Management Systems</td>
<td>3</td>
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<tr>
<td>CEMT 4240</td>
<td>Building Information Modeling (BIM)</td>
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<tr>
<td>CEMT 4242</td>
<td>Construction Safety</td>
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<tr>
<td>CEMT 4939</td>
<td>Internship (At least 3 months)</td>
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<tr>
<td>Business</td>
<td></td>
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Select 24 credits

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<tr>
<th>Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>BMIN 1000</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BLAW 3050</td>
<td>Business Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>BMIN 3001</td>
<td>Fundamentals of Management and Marketing</td>
<td>3</td>
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<tr>
<td>BMIN 3002</td>
<td>Fundamentals of Accounting and Finance</td>
<td>3</td>
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<tr>
<td>BMIN 3004</td>
<td>Principles of Strategic Management</td>
<td>3</td>
</tr>
<tr>
<td>ENTP 3200</td>
<td>The Fundamentals of Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ENTP 3230</td>
<td>Small Business Accounting and Finance</td>
<td>3</td>
</tr>
<tr>
<td>ENTP 3299</td>
<td>Build Your Business: Plan, Pitch, Launch</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2200</td>
<td>Financial Accounting and Financial Statement Analysis</td>
<td>3</td>
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<tr>
<td>BANA 3000</td>
<td>Operations Management</td>
<td>3</td>
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<tr>
<td>ISMG 2050</td>
<td>Business Problem Solving Tools</td>
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<td>INTB 3000</td>
<td>Global Perspectives</td>
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<tr>
<td>MKTG 3000</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4700</td>
<td>Personal Selling and Sales Management</td>
<td>3</td>
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Other courses with advisor approval

Architecture
• 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 & CVEN 2215 Surveying Lab | 2 |
• or CVEN 2212 Surveying for Construction and Engineering |
• ENGR 1200 or ARCH 1110 Fundamentals of Engineering Design Innovation | 3 |
• ENGR 1100 Fundamentals of Computational Innovation        | 3     |

Construction
• ENGR 1200 or ARCH 1110 Fundamentals of Engineering Design Innovation | 3 |
• ENGR 1100 Fundamentals of Computational Innovation        | 3     |

Math and Science
Select one of the following math courses:

- MATH 1130 Precalculus Mathematics
- MATH 1401 Calculus I
- MATH 1110 College Algebra
- MATH 1120 and College Trigonometry

PHYS 2010 College Physics I

PHYS 2321 Intro Experimental Phys Lab I

**Statistics**

Select one of the following:

- 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.

Some example courses:

- 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 Organisms to Ecosystems (Gen Bio)
- & BIOL 2011 and Organisms to Ecosystems Lab (Gen Bio)
- BIOL 2020 Molecules to Cells (Gen Bio)
- & BIOL 2021 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
- ENV 3082 Energy and the Environment
- GEOG 1602 Urban Studies and Planning
- GEOG 4080 Introduction to GIS
- GEOL 1073 Physical Geology: Surface Processes
- & GEOL 1074 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

**URPL 4000** Planning History and Theory

**Total Hours** 120-122

**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/).