CONSTRUCTION MANAGEMENT, BS

Introduction
Please click here 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 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/engineering-design-computing/#graduationrequirementstext)
• Click here for information about Academic Policies

Program Requirements
1. Students must maintain a minimum 2.0 GPA in all courses applying to major requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMIN 1000</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 3050</td>
<td>Business Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 4233</td>
<td>Construction Cost Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 4231</td>
<td>Construction Materials and Methods</td>
<td>3</td>
</tr>
<tr>
<td>CEMT 4232</td>
<td>Construction Planning and Control</td>
<td>3</td>
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<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>
</tr>
<tr>
<td>CEMT 4939</td>
<td>Internship (At least 3 months)</td>
<td>1</td>
</tr>
</tbody>
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Math and Science
Select one of the following math courses:

MATH 1130    Precalculus Mathematics
MATH 1401    Calculus I

BMIN 3001    Fundamentals of Management and Marketing
BMIN 3002    Fundamentals of Accounting and Finance
BMIN 3004    Principles of Strategic Management

Entrepreneurship Certificate

ENTP 3200    Essentials in Entrepreneurship
ENTP 3230    Small Business Accounting and Finance
ENTP 3299    Business Model Development & Planning

Select three of the following:

ACCT 2200    Financial Accounting and Financial Statement Analysis
BANA 3000    Operations Management
MGMT 3000    Managing Individuals and Teams
MKTG 3000    Principles of Marketing
MKTG 4700    Personal Selling and Sales Management

Other courses with advisor approval

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

Engineering
CVEN 1025    Civil Engineering Graphics and Computer Aided Design
CVEN 2212    Surveying for Construction and Engineering
ENGR 1100    Fundamentals of Computational Innovation
ENGR 1200    Fundamentals of Engineering Design Innovation
MECH 1025    CAD and Graphics for Mechanical Engineering

Construction
CEMT 1000    Introduction to Construction Management
CEMT 1007    Introduction to Civil Engineering
CEMT 2100    Construction Management Fundamentals
CEMT 2300    Heavy Civil Construction and Equipment
CEMT 3100    Field Engineering and Management
CEMT 4067    Construction Senior Capstone
CEMT 4231    Construction Materials and Methods
CEMT 4232    Construction Planning and Control
CEMT 4233    Construction Cost Estimating
CEMT 4234    Sustainable Construction
CEMT 4236    Project Management Systems
CEMT 4240    Building Information Modeling (BiM)
CEMT 4242    Construction Safety
CEMT 4939    Internship (At least 3 months)

Select one of the following math courses:

MATH 1130    Precalculus Mathematics
MATH 1401    Calculus I

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Click here for information about Academic Policies
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MATH 1110 &amp; MATH 1120</td>
<td>College Algebra and College Trigonometry</td>
</tr>
<tr>
<td>PHYS 2010</td>
<td>College Physics I</td>
</tr>
<tr>
<td>PHYS 2321</td>
<td>Intro Experimental Phys Lab I</td>
</tr>
</tbody>
</table>

**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

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 |
- ARCH 3340 | Theory of Structures I |
- ARCH 4340 | Theory of Structures II |
- 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 |
- GEOL 1073 & GEOL 1074 | Physical Geology: Surface Processes and Physical Geology: Surface Processes Laboratory |
- IDST 4010 | Foundations of STEM Communication |
- 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 3000 | Planning the Built Environment |

**Total Hours**: 120-122

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1. Could earn a minor in Entrepreneurship by taking 2 additional ENTP courses as technical electives

**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/).