

FOR TRANSFER STUDENTS

PROGRAM OVERVIEW

Earning a bachelor of science in construction engineering and management provides the foundation for a financially rewarding, dynamic and exciting career. Construction engineers are in high demand in the USA and worldwide due to increasing need for infrastructure improvement projects and new construction. The majority of students earning the B.S. in CEM will be eligible to take the Fundamental of Engineering exam and eventually may become a licensed professional engineer (PE). This unique degree program integrates courses from four interdisciplinary fields: engineering, construction, business and architecture. Graduates are sought by a range of general and specialty contractors, engineering, management and consulting firms, developers, builders, and construction manufacturing/supply companies as well as public organizations.

ACADEMIC ADVISING

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GRADUATION REQUIREMENTS & POLICIES

All CU Denver Engineering students are required to complete the following minimum general graduation requirements:

1. Complete a minimum of 127 semester hours.
2. Achieve a minimum 2.0 CU cumulative grade point average (GPA).
3. Complete all college and major requirements.
4. Residency: complete a minimum of 30 CU Denver hours in good standing at CU Denver.
5. Terminal Residency: complete at least the final two semesters as an enrolled CEDC student

PROGRAM REQUIREMENTS & POLICIES

Students are responsible for meeting with the faculty advisor in their department to confirm major requirements. Students completing the Civil Engineering B.S. Degree are required to complete the following minimum program requirements:

1. Complete 24 semester hours of CU Denver Core Curriculum coursework.
2. Complete 30 semester hours of Math and Science.
3. Complete a specialty in one Engineering Science and Design topic with at least 15 credits.
4. Achieve a minimum 2.0 CU cumulative grade point average (GPA) in all major courses.

Courses	Credits	Notes
* Course prerequisites change regularly. Students are responsible for consulting advisors and the class schedule in the student portal for prerequisite information. *		
Required CU Denver Core Curriculum Coursework	24	
Intellectual Competencies: ENGL 1020+ENGL 2030	6	
Humanities and the Arts	6	
Behavioral Sciences	3	
Social Sciences	3	
Cultural Diversity	3	
International Perspectives	3	
Required Math and Science Coursework	30	
MATH 1401 Calculus I	4	
MATH 2411 Calculus II	4	
Statistics course	3	MATH 2830, MATH 3800, CVEN 3611, ELEC 3817, or BANA 2010
PHYS 2311 Calculus-based Physics I	4	
PHYS 2321 Calculus-based Physics Lab I	1	
ENGR 1130 Engineering Chemistry	5	
Additional math and science	9	
Required Architecture & Business Coursework	9	
ARCH 3330 Building Systems I	3	
ARCH 4440 Building Systems II	3	
BMIN 1000 Introduction to Business	3	
Required Engineering Coursework	46	
CEMT 1000 Introduction to Construction Management	1	Or CVEN 1067
CEMT 2100 Construction Mgmt Fundamentals	3	
CEMT 2300 Construction Equipment & Heavy Civil	3	
CEMT 3100 Field Engineering & Management	3	

CEMT 4067 Senior Capstone Project	3	
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CEMT 4231 Construction Materials and Methods	3	
CEMT 4232 Construction Planning and Controls	3	
CEMT 4233 Construction Cost Estimating	3	
CEMT 4234 Sustainable Construction	3	
CEMT 4236 Project Management	3	
CEMT 4240 Building Information Modeling	3	
CEMT 4242 Construction Safety	3	
CEMT 4939 Internship	1	At least 3 months of internship
CVEN 1025 or MECH 1025 Engineering Graphics	3	
CVEN 2212 Engineering Surveying	2	
ENGR 1200 Freshman Design	3	Or ARCH 1110
ENGR 1100 Computational Foundations	3	
Engineering Science and Design coursework	15	Select Civil, Computer Science, Electrical, or Mechanical
Technical Elective	3	

SAMPLE ACADEMIC PLAN OF STUDY

The following academic plan is a *sample* pathway to completing degree requirements for this major. Students should tailor this plan based on previously completed college coursework (e.g., AP, IB, CLEP, dual/concurrent enrollment, and transfer credit), course availability, and individual preferences related to course load, schedules, or add-on programs such as minors or double-majors. Students must meet with an advisor in their department to determine the correct course sequence for their selected Engineering Science specialty.

TO BE COMPLETED AT THE PARTICIPATING COLORADO COMMUNITY COLLEGE

Year One	Semester 1	CRS
	Core Curriculum ARTS	3
	ENG 1021 Core Composition I	3
	CHE 1111 General College Chemistry	4
	MAT 2410 Calculus I	5
	Technical Elective	3

Semester 2	CRS
BUS 1015 Introduction to Business	3
CAD 2400 Computer Aided Drafting	3
Core Curriculum HUMANTIES	3
MAT 2420 Calculus II	4
PHYS 2111 Physics I- Calculus based with lab	5

Year Two	Semester 3	CRS
	Core Curriculum International Perspectives	3
	Core Curriculum Social Science	3
	EKG 1020 Engineering Methodologies	3
	CSC 1060 Computer Science I	3
	MAT 1260 Statistics Course	3

Semester 4	CRS
AEC 2520 Building Env Systems I	3
Core Curriculum Behavioral Science	3
PHYS 2112 Physics II- Calculus based with lab	5
ENGL 1031 Core Composition II	3

TO BE COMPLETED AT CU DENVER*

Year Three	Semester 5	CRS
	CEMT 4231 Construction Materials and Methods	3
	Core Curriculum Cultural Diversity	3
	Engineering Science and Design-1	3
	Math or Science	3
	CEMT 2100 Const Mgmt Fundamentals	3

Semester 6	CRS
ARCH 4440 Building Systems II	3
CEMT 4232 Construction Planning and Controls	3
CEMT 2300 Heavy Civil Construction & Equipment	3
Engineering Science and Design-2	3
Math or Science	3
CEMT 3100 Field Engineering & Management	

Year Four	Semester 7	CRS
	Engineering Science and Design-3	3
	CEMT 4236 Project Management	3
	CEMT 4240 Building Information Modeling	3
	CEMT 4242 Construction Safety	3
	CEMT 4939 Internship	1

Semester 8	CRS
CEMT 4067 Senior Capstone Project	3
CEMT 4233 Construction Cost Estimating	3
CEMT 4234 Sustainable Construction	3
Engineering Science -4	3
Engineering Design-5	4