Civil Engineering

Bachelor of Science (B.S.) – Catalog Year 2026-2027

FOR TRANSFER STUDENTS

PROGRAM OVERVIEW

Earning a Bachelor of Science in civil engineering is the start of a long and successful career. Given population growth, continued global development, and the ongoing need to maintain and modernize infrastructure, civil engineers will remain in strong demand. A degree in civil engineering opens the door to many areas of study, including transportation and highways, hydrology and wastewater systems, structures and bridges, environmental and sustainability issues, and geotechnical and earth design.

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 125 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 academic 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 based on ABET accreditation guidelines:

1. Complete 24 semester hours of **CU Denver Core Curriculum coursework**.
2. Complete 32-33 semester hours of Math, Chemistry, and Physics.
3. Complete 64 semester hours of engineering coursework, including 15 credits of design courses
4. Take the Fundamentals of Engineering (FE) exam prior to graduation.
5. Achieve a minimum 2.0 CU cumulative grade point average (GPA) in all CVEN 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, Chemistry, and Physics Coursework	**33**	
MATH 1401 Calculus I	4	
MATH 2411 Calculus II	4	
MATH 2421 Calculus III	4	
MATH 3195 Linear Algebra and Differential Equations	4	or MATH 3191 and MATH 3200
CVEN 3611 Statistics for Engineers	3	
ENGR 1130 Engineering Chemistry	5	or CHEM 2031 and CHEM 2038 (need 1 more credit to achieve the minimum required for degree)
PHYS 2311 Calculus-based Physics I	4	
PHYS 2321 Calculus-based Physics I Lab	1	
Additional Science course	4	BIOL 2010 + BIOL 2011, CHEM 2061 + CHEM 2068, GEOL 1073 + GEOL 1074, or PHYS 2331
Required Engineering Coursework	**41**	
ENGR 1200 Engineering Design	3	May substitute another level 2000+ engineering course
CVEN 1025 Civil Engineering Graphics	3	
CVEN 1067 Intro to Civil Engineering	1	
CEMT 2100 Construction Management Fundamentals	3	
CVEN 2121 Analytical Mechanics I	3	
CVEN 2214 Surveying Basics + CVEN 2215 Surveying Lab	2	

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CVEN 3121 Mechanics of Materials	3	
CVEN 3141 Intro to Structural Materials	2	
CVEN 3313 Fluid Mechanics	3	
CVEN 3323 Hydrosystems	3	
CVEN 3401 Intro to Environmental Engineering	3	
CVEN 3505 Structural Analysis	3	
CVEN 3602 Transportation Engineering	3	
CVEN 3718 Geotechnical Engineering	3	
CVEN 4000 Senior Seminar	0	
CVEN 4077 Engineering Economy	3	
Design Courses	**15**	
CVEN 4067 Senior Design	3	
Level 4000-5000 level CVEN design courses	12	See catalog for complete list of design course options
Technical Electives	**12**	
Computing Elective	3	CVEN 3200, CVEN 3800, CVEN 4025. See catalog or advisor for additional options.
Upper division technical electives	9	Any 3000-level or higher CVEN or CEMT courses. See catalog or advisor for additional options.

TRANSFER NOTES AND A 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, 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 deviating from this plan must fulfill course prerequisites and must meet with the academic advisor in their department to confirm degree requirements.** Students intending to transfer to CU Denver to pursue a Civil Engineering B.S. degree should note the following:

1. The College of Engineering, Design, and Computing has a competitive admissions process. Students may be admitted to CU Denver but not to the College of Engineering, Design, and Computing. Such students may work with CU Denver's Center for Undergraduate Exploration & Advising (CUE&A) to identify an alternative major and/or program of study.
2. Colorado Community College students should transfer to CU Denver once they have met the College of Engineering, Design, and Computing's admission requirements. They should not necessarily complete an associate's degree.

TO BE COMPLETED AT THE PARTICIPATING COLORADO COMMUNITY COLLEGE

Semester 1	CRS
MAT 1340 College Algebra	4
CHE 1111 General College Chemistry	5
ENG 1021 English Communication I	3
Arts & Humanities (GT-AH1, AH2, AH3, or AH4) 1 of 2	3
TOTAL	**15**

Semester 2	CRS
MAT 1420 College Trigonometry	5
ENG 1022 English Communication II	3
BIO 1111 or CHE 1112 or GEY 1111	5
Arts & Humanities (GT-AH1, AH2, AH3, or AH4) 2 of 2	3
TOTAL	**16**

Semester 3	CRS
MAT 2410 Calculus I	5
CSC 1019 Introduction to Programming	3
International Perspectives (see transferology.com)	3
Social & Behavioral Science (GT-SS1, SS2, or SS3) 1 of 2	3
TOTAL	**14**

Semester 4	CRS
MAT 2420 Calculus II	5
PHY 2111 Calc. Based Physics I	5
Social & Behavioral Science (GT-SS1, SS2, or SS3) 2 of 2	3
TOTAL	**13**

TO BE COMPLETED AT UNIVERSITY OF COLORADO DENVER

Semester 5	CRS
CVEN 1025 Civil Engineering Graphics	3
CVEN 1067 Intro to Civil Engineering	1
CVEN 2121 Analytical Mechanics I	3
ENGR 1200 Engineering Design	3
MATH 2421 Calculus III	4
TOTAL	**14**

Semester 6	CRS
Cultural Diversity Core Curriculum	3
CVEN 3121 Mechanics of Materials	3
CVEN 3141 Intro to Structural Materials	2
CVEN 2214 Surveying Basics + CVEN 2215 Surveying Lab	2
CVEN 3602 Transportation Engineering	3
TOTAL	**13**

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Semester 7	CRS
CEMT 2100 Construction Management Fundamentals	3
CVEN 3313 Fluid Mechanics	3
CVEN 3505 Structural Analysis	3
CVEN 3401 Intro to Environmental Engineering	3
TOTAL	12

Semester 8	CRS
CVEN 3323 Hydrosystems	3
MATH 3195 Linear Algebra & Differential Equations	4
CVEN 3611 Statistics for Engineers	3
CVEN 3718 Geotechnical Engineering	3
TOTAL	13

Semester 9	CRS
2 Design Electives	6
2 Technical Electives	6
TOTAL	12

Semester 10	CRS
CVEN 4000 Senior Seminar	0
CVEN 4067 Senior Design	3
2 Design Electives	6
CVEN 4077 Engineering Economy	3
TOTAL	15