



CCD to CU-Denver Transfer Advising Guide for Civil Engineering (B.S.)

College of Engineering, Design and Computing
[Civil Engineering Department Website](#)

Program Overview:

Earning a bachelor of science in civil engineering is the start of a long and successful career. Given the increase in population, the continuing development of second- and third-world countries and the eventual degradation of city infrastructure, civil engineers will always be in 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.

Admission Requirements:

[Please see this website for more information regarding CU Engineering admission criteria.](#)

CCD Course Summary: (the following courses will apply directly to the degree)

<u>Core Curriculum:</u> (Please consult CU Denver Core Curriculum and Transferology)		<u>CCD Credits</u>
ENG 121	English Composition 1	(3 credits)
ENG 122	English Composition 2	(3 credits)
Arts & Humanities	Two Courses (GT-AH1, AH2, AH3, or AH4)	(6 credits)
Social & Behavior Science	Two courses (GT-SS1, GT-SS2, or GT-SS3)	(6 credits)
History	GT-HI1	(3 credits)
 <u>Mathematics:</u>		
MAT 201	Calculus 1	(5 credits)
MAT 202	Calculus 2	(5 credits)
MAT 203	Calculus 3	(4 credits)
MAT 204	Calculus 3 with Engineering Applications	(5 credits)
MAT 255	Linear Algebra	(3 credits)
MAT 265	Differential Equations	(3 credits)
MAT 266	Differential Equations with Linear Algebra	(4 credits)
 <u>Science:</u>		
PHY 211	Calc-based Physics I	(5 credits)
PHY 212	Calc-based Physics II	(5 credits)
CHE 111	General Chemistry I	(5 credits)
BIO 111 or CHE 112 or GEY 111	General Biology or Chemistry 2 or Physical Geology	(4-5 credits)
 <u>Engineering/Computer Science:</u>		
CSC 119	Intro to Programming	(3 credits)
CAD 101+102	Computer Aided Drafting	(6 credits total)

Suggested Five-Year Course Plan for Civil Engineering

This is a suggested guide of coursework only and is subject to change. Students should consult with a CU Denver academic advisor as soon as possible prior to transferring. CU Denver courses may be reverse transferred to count toward a community college associate degree. Course credits shown below reflect those awarded by the institution offering the course.

* denotes courses that do not apply to the B.S. degree

Community College of Denver (CCD) first two years

Fall Semester 1

Course	Course Title	CCD Credits
EGG 106	Robotics Design	1
MAT 121	College Algebra* GT:MA1	4
CAD 101	Computer Aided Drafting I*	3
ECO 202	Microeconomics	3
ENG 121	English Composition I GT-CO1	3
	Total Credits	14

Spring Semester 1

Course	Course Title	CCD Credits
EGG 151	Experimental Design	2
MAT 166	Pre-Calculus* GT:MA1	5
CHE 111	College Chemistry I (with lab) GT-SC1	5
ENG 122	English Composition II GT-CO2	3
	Total Credits	15

Fall Semester 2

Course	Course Title	Credits
CAD 102	Computer Aided Drafting II	3
MAT 201	Calculus I GT:MA1	5
PHI 112	Ethics GT-AH3	3
COM 220	Intercultural Comm GT-SS3	3
Elective		1
	Total Credits	15

Spring Semester 2

Course	Course Title	CCD Credits
MAT 202	Calculus II GT:MA1	5
PHY 211	Physics Calculus Based (with lab) GT-SC1	5
Varies	GT-HI1	3
Varies	GT-AH1-2, 4	3
	Total Credits	16

CU-Denver (last three years)

Fall Semester 3

Course	Course Title	Credits
CVEN 1067	Intro to Civil Engineering	1
IWKS 2300	Computational Foundations	3
CVEN 2121	Analytical Mechanics I	3
CVEN 2212	Engineering Surveying	2
CVEN 3602	Transportation Engineering	3
	Cultural Diversity	3
	Total Credits	15

CU-Denver (last three years)...continued

Spring Semester 3

Course	Course Title	Credits
CVEN 3121	Mechanics of Materials	3
CVEN 3141	Intro to Structural Materials	2
CVEN 3401	Intro to Environmental Engineering	3
MATH 2421	Calculus III	4
	Total Credits	12

Fall Semester 4

Course	Course Title	Credits
CVEN 3111	Analytical Mechanics II	3
CVEN 3313	Fluid Mechanics	3
CVEN 3505	Structural Analysis	3
CVEN 3718	Geotechnical Engineering I	3
CVEN 3200	Computing Methods	3
	Total Credits	15

Spring Semester 4

Course	Course Title	Credits
CVEN 3323	Hydrosystems	3
PHYS 2321	Calculus-based Physics II	4
MATH 3195	Linear Algebra & Differential Equations	4
	Design Elective	3
	Total Credits	14

Fall Semester 5

Course	Course Title	Credits
CVEN 4025, CVEN 4077, OR CVEN 4087	AutoCAD Civil 3D, OR Engineering Economy, OR Contracts	3
	Design Elective	3
	Technical Elective	3
CVEN 3611	Engineering Statistics	3
CVEN 4230	Construction Engineering	3
	Total Credits	15

Spring Semester 5

Course	Course Title	Credits
CVEN 4000	Senior Seminar	0
CVEN 4067	Senior Design	3
	Design Electives x2	6
	Technical Elective	3
	Technical Elective	3
	Total Credits	15