



CMC-Steamboat Springs to CU Boulder Transfer Advising Guide for Civil Engineering (B.S.)

[Civil Engineering Department Website](#)

Program Overview:

Civil engineers design and supervise the construction of the buildings and infrastructure that make up our world: roads, bridges, tunnels, skyscrapers, transit systems, water treatment facilities, and offshore structures. They are problem solvers meeting the challenges of pollution, clean drinking water, climate change, energy and transportation needs, urban development, and community planning for the megacities of the 21st century.

Admission Requirements:

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

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

***BOLD** denotes admission requirement courses

Mathematics:

MAT 201*	Calculus 1	(5 credits)
MAT 202*	Calculus 2	(5 credits)
MAT 203	Calculus 3	(5 credits)
MAT 266	Differential Equations/Linear Algebra	(4 credits)

Science:

CHE 111*	General Chemistry 1	(5 credits)
PHY 211	Calc-based Physics 1	(5 credits)
PHY 212	Calc-based Physics 2	(5 credits)
<i>^PHY 211 will also count for admission requirement in place of CHE 111</i>		
GEY 111	Physical Geology	(4 credits)

Engineering/Computer Science:

CSC 160	Computer Science 1	(4 credits)
CAD 255	Solid Works	(3 credits)
EGG 140	Engineering Projects	(3 credits)
EGG 211	Statics (<i>fall only</i>)	(3 credits)
EGG 212	Dynamics (<i>spring only</i>)	(3 credits)
EGG 206	Mechanics of Materials	(3 credits)
EGG 230	Thermodynamics	(3 credits)

Humanities and Social Sciences (H/SS):

- Minimum of nine (9) credit hours at the lower division (100-200) level
 - Six (6) credit hours at the upper-division level – *typically taken at CU Boulder*
- Please consult our [CCCS humanities and social science list](#) when selecting these classes

Suggested Five-Year Course Plan for Civil Engineering

This is a suggested guide of coursework only and is subject to change. Always consult with your academic advisor for graduation planning purposes.

*denotes courses that do not apply directly to degree, other than as free electives

Colorado Mountain College (first two years)

Fall Semester 1

Course	Course Title	Credits
MAT 121	College Algebra*	4
CHE 101	Intro to Chemistry*	5
ENG 121	English Composition 1 *	3
	Humanities/Social Science	3
	Total Credits	13

Spring Semester 1

Course	Course Title	Credits
MAT 166	Pre-Calculus*	5
CHE 111	College Chemistry 1 (with lab)	5
	Humanities/Social Science	3
	Total Credits	13

Fall Semester 2

Course	Course Title	Credits
MAT 201	Calculus 1	5
CAD 255	Solid Works	3
CSC 160	Computer Science 1	4
EGG 140	Engineering Projects	3
	Total Credits	15

Spring Semester 2

Course	Course Title	Credits
MAT 202	Calculus 2	5
PHY 211	Physics 1	5
GEY 111	Physical Geology	4
	Humanities/Social Science	3
	Total Credits	17

CU-Boulder (last three years)

Fall Semester 3

Course	Course Title	Credits
APPM 2350	Calculus 3	4
PHYS 1120	Physics 2	4
PHYS 1140	Experimental Physics	1
CVEN 2121	Analytical Mechanics 1	3
CVEN 2012	Geomatics	3
	Total Credits	15

Spring Semester 3

Course	Course Title	Credits
APPM 2360	Differential Eq./Linear Alg.	4
AREN 2110	Thermodynamics	3
CVEN 3161	Mechanics of Materials	3
CVEN 3313	Theoretical Fluid Dynamics	3
	Total Credits	13

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

Fall Semester 4

Course	Course Title	Credits
CVEN 3246	Intro to Construction	3
CVEN 3323	Hydraulic Engineering	3
CVEN 3414	Fund. Of Environ. Engineering	3
CVEN 3525	Structural Analysis	3
CVEN 3708	Geotechnical Engineering 1	3
	Total Credits	15

Spring Semester 4

Course	Course Title	Credits
CVEN 3111	Analytical Mechanics 2	3
CVEN 3227	Probability and Statistics	3
	CVEN Proficiency 1	3
	Engineering Writing Course	3
	Total Credits	15

Fall Semester 5

Course	Course Title	Credits
CVEN 4897	Professional Issues	3
	CVEN Proficiency 2	3
	Technical Elective	3
	Technical Elective	3
	UD Humanities/Social Science	3
	Total Credits	15

Spring Semester 5

Course	Course Title	Credits
CVEN 4899	Senior Design	4
	CVEN Proficiency 3	3
	Technical Elective	3
	Technical Elective	3
	UD Humanities/Social Science	3
	Total Credits	16

Suggested Four-Year Course Plan for Civil Engineering

This is a suggested guide of coursework only and is subject to change.
Always consult with your academic advisor for graduation planning purposes.

*denotes courses that do not apply directly to degree,
other than as free electives

Colorado Mountain College (First 2 years)

Fall Semester 1

Course	Course Title	Credits
MAT 201	Calculus 1	5
CHE 111	College Chemistry (with lab)	5
	Humanities/Social Science	3
EGG 140	Engineering Projects	3
	Total Credits	16

Spring Semester 1

Course	Course Title	Credits
MAT 202	Calculus 2	5
CSC 160	Computer Science 1	4
PHY 211	Physics 1	5
CAD 255	Solid Works	3
	Total Credits	17

Fall Semester 2

Course	Course Title	Credits
MAT 204	Calculus 3	5
EGG 211	Statics	3
PHY 212	Physics 2	5
	Humanities/Social Science	3
	Total Credits	16

Spring Semester 2

Course	Course Title	Credits
MAT 266	Diff.Eq/Linear Algebra	4
EGG 212	Dynamics	3
EGG 206	Mechanics of Materials	3
EGG 230	Thermodynamics	3
	Humanities/Social Science	3
	Total Credits	16

CU-Boulder (Last 2 years)

Fall Semester 3

Course	Course Title	Credits
CVEN 2012	Geomatics	3
CVEN 3246	Intro to Construction	3
CVEN 3414	Fund. Of Environ. Engineering	3
CVEN 3708	Geotechnical Engineering 1	3
	Engineering Writing Course	3
	Total Credits	15

Spring Semester 3

Course	Course Title	Credits
CVEN 3313	Theoretical Fluid Dynamics #	3
CVEN 3227	Probability and Statistics	3
CVEN 3525	Structural Analysis	3
CVEN 3698	Engineering Geology	3
	CVEN Proficiency 1	3
	Total Credits	15

Fall Semester 3

Course	Course Title	Credits
CVEN 3323	Hydraulic Engineering #	3
CVEN 4897	Professional Issues #	3
	CVEN Proficiency 2	3
	Technical Elective	3
	Technical Elective	3
	UD Humanities/Social Science	3
	Total Credits	18

Spring Semester 4

Course	Course Title	Credits
CVEN 4899	Senior Design #	4
	CVEN Proficiency 3	3
	Technical Elective	3
	Technical Elective	3
	UD Humanities/Social Science	3
	Total Credits	16

[^] Summer coursework can lighten semester loads

Course is offered once per year (Fall or Spring, as shown)