



RRCC to CU-Boulder Transfer Advising Guide for Environmental Engineering (B.S.)

College of Engineering and Applied Science
[Environmental Engineering Department Website](#)

Program Overview:

Environmental engineers play a vital role in maintaining the quality of both human environmental systems and the natural environment. Environmental engineering encompasses the scientific assessment and development of engineering solutions to environmental problems affecting the biosphere, land, water, and air quality.

Admission Requirements:

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

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

**BOLD denotes admission requirement courses (only ONE science course needed for admission)*

Mathematics:

MAT 201*	Calculus 1	(5 credits)
MAT 202*	Calculus 2	(5 credits)
MAT 204	Calculus 3 with Engineering Applications	(5 credits)
MAT 261	Differential Equations	(4 credits)
MAT 255	Linear Algebra	(3 credits)

Science:

CHE 111*	General Chemistry 1	(5 credits)
CHE 112**	General Chemistry 2	(5 credits)
<i>**CU strongly recommends CHE 111 AND CHE 112 before you transfer to this major</i>		
PHY 211	Calc-based Physics 1	(5 credits)
PHY 212	Calc-based Physics 2	(5 credits)

Additional Science & Engineering Courses:

EGG 140	Engineering Projects	(3 credits)
GEY 111	Physical Geology (soph. technical elective)	(4 credits)
EGG 211	Statics (<i>prerequisite of PHY 211</i>)	(3 credits)

Humanities and Social Sciences (H/SS):

- Up to 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 Environmental 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

Red Rocks Community College (first two years)

Fall Semester 1

Course	Course Title	Credits
MAT 121	College Algebra*	4
CHE 101	Intro to Chemistry (with Lab)*	5
	Free Elective*	3
	Humanities/Social Science	3
	Total Credits	15

Spring Semester 1

Course	Course Title	Credits
MAT 122	Trigonometry*	3
CHE 111	College Chemistry 1 (with lab)	5
GEY 111	Physical Geology	4
	Total Credits	12

Fall Semester 2

Course	Course Title	Credits
MAT 201	Calculus 1	5
CHE 112	College Chemistry 2 (with lab)	5
EGT 140	IDEA (engineering projects)	3
	Total Credits	15

Spring Semester 2

Course	Course Title	Credits
MAT 202	Calculus 2	5
PHY 211	Physics 1	5
CHE 211	Organic Chemistry 1	5
	Humanities/Social Science	3
	Total Credits	13

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 3227	Prob. Stats. And Decision	3
CVEN 2121	Analytical Mechanics 1	3
	Total Credits	15

Spring Semester 3

Course	Course Title	Credits
APPM 2360	Differential Eq./Lin. Algebra	4
CHEN 2120	Material & Energy Balances	3
CVEN 4834	Sustainability Principles	3
CVEN 3414	Fund. Of Environmental Engr.	3
	Humanities/Social Science	3
	Total Credits	15

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

Fall Semester 4

Course	Course Title	Credits
	Fluid Mechanics	3
CVEN 4404	Water Chemistry	3
CVEN 4414	Water Chemistry Lab	1
	Engineering Economics	3
	Thermodynamics	3
GEEN 3400	Engineering Projects	3
	Total Credits	16

Spring Semester 4

Course	Course Title	Credits
CVEN 4484	Environmental Microbiology	3
CVEN 4424	Environmental Org. Chemistry	3
	Heat Transfer	3
	Option Course 1	3
	Engineering Writing Course	3
	UD Humanities/Social Science	3
	Total Credits	16

Fall Semester 5

Course	Course Title	Credits
EVEN 4464	Environmental Eng. Processes	3
	Lab or Field Course	3
	Option Course 2	3
	Technical Elective	3
	Technical Elective	3
	Total Credits	15

Spring Semester 5

Course	Course Title	Credits
CVEN 4333	Engineering Hydrology	3
MCEN 4131	Air Pollution Control	3
CVEN 4434	Environmental Eng. Design	3
	Option Course 3	3
	UD Humanities/Social Science	3
	Total Credits	15