

RRCC to CU-Denver Transfer Advising Guide for Electrical Engineering (B.S.)

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

Program Overview:

The Bachelor of Science in Electrical Engineering, provides an ABET-accredited undergraduate education to a diverse group of students of different racial and cultural backgrounds, full-time students as well as those who have considerable work and family commitments outside their academic learning and students with a wide variety of work experiences. The department strives to continually update our program of study to qualify our graduates for technical positions in the Denver metropolitan area and beyond, while also providing sufficient breadth and depth to assure our graduates of success in their chosen profession. The electrical engineering program stresses the rigorous scientific and theoretical foundations of the discipline so our graduates can enter any advanced level educational program with the critical thinking skills needed for success. In addition, the program includes interdisciplinary work. Our graduates are productive engineers who can advance their careers on different professional tracks in the engineering industry.

Admission Requirements:

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

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

<u>Core Curriculum:</u> (Please consult CU Denver Core Curriculum and Transferology)		<u>RRCC Credits</u>
ENG 121/131	English Composition 1 / Technical Writing 1	(3 credits)
ENG 122	English Composition 2	(3 credits)
Arts & Humanities	Two Courses from two Categories (GT-AH1, AH2, AH3, or AH4)	(6 credits)
Social & Behavior Science	Two courses (GT-SS1, GT-SS2, or GT-SS3)	(6 credits)
History	One GT-HI1	(3 credits)
 <u>Mathematics:</u>		
MAT 201	Calculus 1	(5 credits)
MAT 202	Calculus 2	(5 credits)
MAT 204	Calculus 3 with Engineering Applications	(5 credits)
MAT 255	Linear Algebra	(3 credits)
MAT 261	Differential Equations with Engineering Applications	(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)
 <u>Engineering/Computer Science:</u>		
CSC 160	Computer Science	(4 credits)
EGT 140	IDEA (engineering projects)	(3 credits)

Suggested Five-Year Course Plan for Electrical 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.

Pre-Engineering at Red Rocks Community College (RRCC)

These are recommended courses for students who need preparation for the calculus sequence, chemistry, and computer science.

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

** CU Denver online course (see <http://catalog.ucdenver.edu> for prereqs)

MAT 055/MAT 121 Combined Pre-Algebra and College Algebra*, 8 credits

MAT 121 College Algebra*, 4 credits

MAT 122 Trigonometry*, 4 credits

CHE 101 Introduction to Chemistry*, 5 credits

CSC 119, Introduction to Programming*, 3 credits

Red Rocks Community College (First 2 Years)

RRCC Fall Semester 1

Course	Course Title	Credits
MAT 201	Calculus 1	5
ENG 121	English Composition 1	3
CHE 111	College Chemistry 1 (w/Lab)	5
COM 220	Intercultural Comm. GT-SS3	3
	Total Credits	16

RRCC Spring Semester 1

Course	Course Title	Credits
MAT 202	Calculus 2	5
ENG 122	English Composition 2	3
CSC 160	Computer Science 1/Elec 1520	4
	Art/Hum/SS/Hi	3
	Total Credits	15

RRCC Fall Semester 2

Course	Course Title	Credits
MAT 204	Calculus 3	5
PHY 211	Physics 1	5
ELEC 1510	Digital Logic – CU Denver Online Course**	3
EGT 140	IDEA (engineering projects)/Engr 1200	3
	Total Credits	16

RRCC Spring Semester 2

Course	Course Title	Credits
MAT 261	Differential Equations	4
PHY 212	Physics 2	5
ELEC 2520	Embedded Systems – CU Denver Online Course**	3
	Art/Hum/SS/Hi	3
	Total Credits	15

CU Denver (Last 3 Years)

CU Denver Fall Semester 3

Course	Course Title	Credits
MATH 3191	Linear Algebra	3
ELEC 2132	Circuits I– CU Denver Online Course**	3
ELEC 3520	AI-IoT	3
	Art/Hum/SS/BS/Hi***	3
	Total Credits	12

***Course apply toward completion of AS degree. See advisor

CU Denver Spring Semester 3

Course	Course Title	Credits
	Art/Hum/SS/BS/Hi***	3
ELEC 2651	Signal and Systems	3
ELEC 2142	Circuits Analysis II	3
ELEC 2531	Logic Lab	1
ELEC 3133	Electromagnetic Fields	3
	Total Credits	13

***Course applies toward completion of AS degree. See advisor

CU Denver Fall Semester 4

Course	Course Title	Credits
ELEC 3817	Probability And Statistics	3
ELEC 3225	Electronics I	4
ELEC 3316	Signals and Systems	3
ELEC 3164	Energy Systems	3
ELEC 3724	Energy System Lab	1
	Total Credits	14

***Course applies toward completion of AS degree. See advisor

CU Denver Spring Semester 4

Course	Course Title	Credits
ELEC 3900	FAB and Electronics Lab	3
ELEC 3701	Machine Learning	3
	Professional Elective	3
	ELEC Specialty 4xxx & Lab	4
	Total Credits	13

CU Denver Fall Semester 5

Course	Course Title	Credits
ELEC 4309	Senior Design I Project	3
	ELEC Specialty 4xxx	3
	ELEC Specialty 4xxx & Lab	4
	ELEC Specialty 4xxx	3
	Total Credits	12

CU Denver Spring Semester 5 (Part-Time)

Course	Course Title	Credits
ELEC 4319	Senior Design II Project	3
	ELEC Specialty 4xxx	3
ENGR 3400	Cultural Diversity***	3
	Art/Hum/SS/BS/Hi***	3
	Total Credits	12