



University of Colorado **Denver**

Community College of Aurora (CCA) 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.](#)

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

<u>Core Curriculum:</u> (Please consult CU Denver Core Curriculum and Transferology)		<u>CCA 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 266	Differential Equations/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)
 <u>Engineering/Computer Science:</u>		
CSC 160	Computer Science I	(4 credits)
EKG 151	Experimental Design	(2 credits)

Suggested Five-Year Course Plan for Electrical Engineering

Updated 10/2021

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

** denotes CU Denver online course

Community College of Aurora (CCA) first two years

Fall Semester 1

Course	Course Title	Credits
MAT 122 or 166	Trigonometry or Pre-Calculus*	3-5
ENG 121	English Composition 1	3
EGG 106	Robotics Design*	1
	Art/Hum/SS/BS/BI	3
	Art/Hum/SS/BS/BI	3
	Total Credits	13-15

Spring Semester 1

Course	Course Title	Credits
MAT 201	Calculus 1	5
ENG 122	English Composition 2	3
CHE 111	College Chemistry 1 (with lab)	5
EGG 151	Experimental Design	2
	Total Credits	15

Fall Semester 2

Course	Course Title	Credits
MAT 203	Calculus 2	4
PHY 211	Physics 1	5
CSC 160	Computer Science 1/Elec 1520	4
ELEC 1510	Digital Logic**	3
	Total Credits	16

Spring Semester 2

Course	Course Title	Credits
MAT 204	Calculus 3	4
PHY 212	Physics II	5
	Art/Hum/SS/BS/BI	3
Math 266	Differential Equations/Linear Algebra	4
	Total Credits	16

CU-Denver (last three years)

Fall Semester 3

Course	Course Title	Credits
ELEC 2520	Embedded Systems.	3
ELEC 2132	Circuits I**	3
ELEC 3520	AL-IOT	3
ELEC 3817	Eng. Prob. And Stats	3
ELEC 2531	Logic Lab	1
	Total Credits	13

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

Spring Semester 3

Course	Course Title	Credits
ELEC 3520	AL-IOT	3
ELEC 2142	Circuits Analysis II	3
ELEC 2651	Signal Processing	3
ELEC 3133	Electromagnetic Fields	3
	Art/Hum/SS/BS/BI	3
	Total Credits	15

Fall Semester 4

Course	Course Title	Credits
ELEC 3225	Electronics	4
ELEC 3164/3725	Energy System and Lab	4
ELEC 3133	Electromagnetic Fields	3
ELEC 3316	Signal and Systems	3
	Total Credits	14

Spring Semester 4

Course	Course Title	Credits
ELEC 3701	Machine Learning	3
ELEC 3900	Circuits Design and Fab. Lab	3
	ELEC Specialty 4xxx & Lab	4
	ELEC Specialty 4xxx	3
	Total Credits	13

Fall Semester 5

Course	Course Title	Credits
ELEC 4309	Senior Design I Project	3
	ELEC Specialty 4xxx	3
	ELEC Specialty 4xxx	3
	Professional Elective	3
	Total Credits	12

Spring Semester 5

Course	Course Title	Credits
ELEC 4319	Senior Design II Project	3
	ELEC Specialty 4xxx & Lab	4
ENGR 3400	Technology and Culture	3
	Art/Hum/SS/BS/BI	3
	Total Credits	13

Updated 10/2021