



## 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 <a href="#">CU Denver Core Curriculum</a> and <a href="#">Transferology</a> )		<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 2/2020

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/Hi	3
	Art/Hum/SS/BS/Hi	3
	<b>Total Credits</b>	<b>13-15</b>

### 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
	<b>Total Credits</b>	<b>15</b>

### Fall Semester 2

Course	Course Title	Credits
MAT 203	Calculus 2	4
PHY 211	Physics 1	5
CSC 160	Computer Science 1	4
<b>ELEC 1510</b>	<b>Logic Design**</b>	<b>3</b>
	<b>Total Credits</b>	<b>16</b>

### Spring Semester 2

Course	Course Title	Credits
MAT 204	Calculus 3	5
PHY 212	Physics II	5
<b>ELEC 2531</b>	<b>Logic Lab**</b>	<b>1</b>
<b>ELEC 2520</b>	<b>Embedded Systems II**</b>	<b>3</b>
	Art/Hum/SS/BS/Hi	3
	<b>Total Credits</b>	<b>17</b>

## CU-Denver (last three years)

### Fall Semester 3

Course	Course Title	Credits
MATH 3195	Linear Alg./Differential Eq.	4
ELEC 2132	Circuits I**	3
ELEC 3651	Digital Hardware Design	3
	Art/Hum/SS/BS/Hi	3
	<b>Total Credits</b>	<b>13</b>

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

### Spring Semester 3

Course	Course Title	Credits
ELEC 3817	Probability and Statistics	3
ELEC 2142	Circuits Analysis II	3
ELEC 2552	Sophomore circuits lab	1
MECH 3012	ENGR Science Elective (see program guide)	3
ENGR 3400	Cultural Diversity	3
	<b>Total Credits</b>	<b>13</b>

### Fall Semester 4

Course	Course Title	Credits
ELEC 3215	Electronics I	3
ELEC 3715	Electronics Lab	1
ELEC 3133	Electromagnetic Fields	3
ELEC 3316	Linear Systems	3
	Art/Hum/SS/BS/Hi	3
	<b>Total Credits</b>	<b>13</b>

### Spring Semester 4

Course	Course Title	Credits
ELEC 3225	Electronics II	3
ELEC 3735	Junior Lab	1
ELEC 3164	Energy Conversion	3
ELEC 3724	Energy Conversion Lab	1
	ELEC Specialty 4xxx & Lab	4
	<b>Total Credits</b>	<b>12</b>

### 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
	<b>Total Credits</b>	<b>12</b>

### Spring Semester 5

Course	Course Title	Credits
ELEC 4319	Senior Design II Project	3
	ELEC Specialty 4xxx & Lab	4
	Professional Elective	3
	ELEC Specialty 4xxx	3
	<b>Total Credits</b>	<b>13</b>