



## Front Range Community College (FRCC) 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.](#)

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

\* **BOLD denotes admission requirement courses**

<u>Core Curriculum:</u> (Please consult <a href="#">CU Denver Core Curriculum</a> and <a href="#">Transferology</a> )		<u>FRCC 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>		
<b>MAT 201*</b>	<b>Calculus 1</b>	<b>(5 credits)</b>
<b>MAT 202*</b>	<b>Calculus 2</b>	<b>(5 credits)</b>
MAT 204	Calculus 3 with Engineering Applications	(5 credits)
MAT 266	Differential Equations/Linear Algebra	(4 credits)
 <u>Science:</u>		
<b>PHY 211*</b>	<b>Calc-based Physics I</b>	<b>(5 credits)</b>
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 140	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.

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

\*\* denotes CU Denver online course

### Front Range Community College (FRCC) first two years

#### Fall Semester 1

Course	Course Title	Credits
MAT 121	College Algebra*	4
ENG 121	English Composition 1	3
EGG 100	Intro to Engineering*	1
	Art/Hum/SS/BS/Hi	3
	Art/Hum/SS/BS/Hi	3
	<b>Total Credits</b>	<b>14</b>

#### Spring Semester 1

Course	Course Title	Credits
MAT 166 or 122	Pre-Calculus or Trigonometry *	3/5
ENG 122	English Composition 2	3
CHE 111	College Chemistry 1 (with lab)	5
CSC 119	Intro to Programming*	3
	<b>Total Credits</b>	<b>14-16</b>

#### Fall Semester 2

Course	Course Title	Credits
MAT 201	Calculus 1	5
CSC 160	Computer Science 1	4
<b>ELEC 1510</b>	<b>Logic Design**</b>	<b>3</b>
	Art/Hum/SS/BS/Hi	3
	<b>Total Credits</b>	<b>15</b>

#### Spring Semester 2

Course	Course Title	Credits
MAT 202	Calculus 2	5
PHY 211	Physics 1	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 2421	Calculus 3	4
PHYS 2331	Physics II	4
ELEC 1201	Intro to Electrical Engineering	1
ELEC 2132	Circuits I**	3
ELEC 3651	Digital Hardware Design	3
	<b>Total Credits</b>	<b>15</b>

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

#### Spring Semester 3

Course	Course Title	Credits
MATH 3195	Linear Alg./Differential Eq.	4
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>14</b>

#### Fall Semester 4

Course	Course Title	Credits
ELEC 3817	Probability and Statistics	3
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>16</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>