PPSC (all campuses) to CU-Boulder
Transfer Advising Guide for Electrical & Computer Engineering (B.S.)

Electrical & Computer Engineering Department Website

Program Overview:

Computer engineers (or computer hardware engineers) research, design, develop, test, and oversee the manufacture and installation of computer hardware, including computer chips, circuit boards, computer systems, and related equipment such as keyboards, routers, and printers. This field should not be confused with computer software engineers, who design and develop the software systems that control computers.

Admission Requirements:

Please see this website for more information regarding CU Engineering admission criteria

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

*__BOLD denotes admission requirement courses__

**denotes recommended requirement before transferring*

Mathematics:

MAT 2410*	**Calculus 1**	**(5 credits)**
MAT 2420*	**Calculus 2**	**(5 credits)**
MAT 2430 OR	Calculus 3	(5 credits)
MAT 2431	Calculus 3 with Engineering Applications	(5 credits)
MAT 2562	Differential Equations/Linear Algebra	(4 credits)

Science:

PHY 2111*	**Calc-based Physics 1**	**(5 credits)**
PHY 2112	Calc-based Physics 2	(5 credits)
CHE 1111	General Chemistry 1	(5 credits)
^also counts for admission requirement in place of PHY 2111		
PHY 2113	Physics 3	(3 credits)

Engineering/Computer Science:

EGG 1020/1040	Engineering Methodologies/Eng. Projects	(3 credits)
OR EGT 1110	Intro to Design and Engineering Applications	(3 credits)
CSC 1060**	Computer Science 1	(4 credits)
CSC 1061**	Computer Science 2 (Data Structures)	(4 credits)

Humanities and Social Sciences (H/SS):

- Up to nine (9) credit hours at the lower division (1000-2000) level
  - Six (6) credit hours 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 Electrical & Computer 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

Pikes Peak State College (first two years)

Fall Semester 1

Course	Course Title	Credits
MAT 1440	Pre-Calculus*	5
	Free Elective*	1
ENG 1021	English Composition 1 (H/SS)	3
CSC 1019	Intro to Programming*	3
	Total Credits	**12**

Spring Semester 1

Course	Course Title	Credits
MAT 2410	Calculus 1	5
CHE 1111	College Chemistry 1 (with lab)	5
CSC 1060	Computer Science 1	4
	Total Credits	**14**

^PHY 213 can be exchanged with CHE 111

Fall Semester 2

Course	Course Title	Credits
MAT 2420	Calculus 2	5
PHY 2111	Physics 1	5
CSC 1061	Computer Science 2	4
	Total Credits	**14**

Spring Semester 2

Course	Course Title	Credits
MAT 2431	Calculus 3	5
PHY 2112	Physics 2	5
	Humanities/Social Science	3
	Total Credits	**13**

CU-Boulder (last three years)

Fall Semester 3

Course	Course Title	Credits
APPM 2360	Differential Eq./Linear Alg.	4
ECEN 2250	Intro to Circuits	3
ECEN 2350	Digital Logic	3
	Humanities/Social Science	3
	Total Credits	**13**

Spring Semester 3

Course	Course Title	Credits
ECEN 2260	Circuits as Systems	3
ECEN 2270	Electronics Design Lab	3
ECEN 2370	Embedded Software Engr.	3
	Sophomore Elective	3
ECEN 2703	Discrete Math for Comp. Eng.	3
	Total Credits	**15**

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

Fall Semester 4

Course	Course Title	Credits
ECEN 2360	Prog. of Digital Systems	3
ECEN 2810	Probability	3
	Advanced Analog Elective	3
	Engineering Writing Course	3
	Total Credits	**12**

Spring Semester 4

Course	Course Title	Credits
ECEN 3753	Real-Time Operating Systems	3
ECEN 3593	Computer Organization	3
	Technical Elective	3
	Advanced Concentration Elec.	3
	Total Credits	**12**

Fall Semester 5

Course	Course Title	Credits
ECEN 4610	Capstone 1	3
	Advanced Concentration Elec.	3
	Technical Elective	3
	Software Elective	3
	UD Humanities/Social Science	3
	Total Credits	**15**

Spring Semester 5

Course	Course Title	Credits
ECEN 4620	Capstone 2	3
	Technical Elective	3
	Technical Elective	3
	UD Humanities/Social Science	3
	Total Credits	**12**