

Electrical Engineering Program Undergraduate Emphases

The ECE electives allow students to acquire more in-depth knowledge in one of several areas of specialization. Several possible tracks are illustrated below with recommendations for related electives. Note that these are NOT to be considered the only possibilities for electives. They are listed just to provide some guidance in choosing electives consistent with specific disciplines.

Course descriptions for many of these courses can be found in the **General Engineering Academic Requirements (GEAR)** <<https://engineering.ucsb.edu/undergraduate/academic-advising/gear-publications>>

Approved Departmental Electives

Computer Engineering

ECE122A-B
ECE 123
ECE150
ECE153A-B
ECE 154A-B

VLSI Design

ECE122AB
ECE153A-B
ECE157A-B

Control Systems/Robotics

ECE 130C
ECE 141A-B-C-3units ea.
ECE 147A-B-C (5 units ea.)
ECE 149
ECE 179D
ECE 179P
ECE 181
ECE 183

Electronic Systems

ECE122A-B
ECE125
ECE142
ECE144
ECE145A-B-C:
5 units each
ECE146A-B:
5 units each
ECE148

Engineering & Technology Management*

TMP 120
TMP 122

*Students may count ONE TMP course as a departmental elective

Signal Processing and Communications

ECE 130C
ECE 146A-B
ECE 148
ECE 158
ECE 160
ECE 178
ECE 180
ECE 181

Nanotechnology: Material & Devices

ECE 120A-B
ECE135
ECE141A-B-C (A&C-3 units ea)
ECE144
ECE162A-B-C
Materials 100A-C (3 units ea)
Materials 100B or Materials 101
- (3 units ea)

Other

ECE 192 or ECE 196 (4 units combined max)
ECE 194AA-ZZ (Except 194R)

Approved Departmental Sequences

Design Sequences

ECE 120A & ECE 120B
ECE 122A & ECE 122B
ECE 145A & ECE 145B (5 units each)
ECE 146A & ECE 146B (5 units each)
ECE 147A & ECE 147B (5 units each)
ECE 147A & ECE 147C (5 units each)
ECE 153A & ECE 153B
ECE 158 & ECE 178
ECE 178 & ECE 181
ECE 179D & ECE 179P

Other Sequences

ECE 122A & ECE 120A
ECE 123 & ECE 122B
ECE 141A & ECE 141B (ECE 141A: 3 units)
ECE 141A & ECE 141C(3 units each)
ECE 144 & ECE 135
ECE 145A & ECE 145C (5 units each)
ECE 145A & ECE 146A (5 units each)
ECE 148 & ECE 158
ECE 148 & ECE 178
ECE 154A & ECE 154B
ECE 157A & ECE 157B
ECE 158 & ECE 181
ECE 160 & ECE 178
ECE 160 & ECE 181
ECE 162A & ECE 162B

Electrical Engineering

Schedule of Senior EE Electives, 2016-17 & Later

Department of Electrical and Computer Engineering – University of California, Santa Barbara

Last Name, First Name

UCSB Email

Perm Number

Phone Number

STUDENTS ARE RESPONSIBLE FOR DETERMINING AND TAKING THE NECESSARY PREREQUISITES FOR THE CLASSES LISTED.

YOUR SENIOR ELECTIVES MUST INCLUDE:

- 1) A MINIMUM OF 32 UNITS;
- 2) A MINIMUM OF 8 COURSES;
- 3) EE SENIOR CAPSTONE PROJECT, ECE 188A-B-C (3 UNITS EACH, TOTAL OF 9 UNITS); AND ONE (1) ADDITIONAL SEQUENCE REQUIRED;
- 4) ADDITIONAL DEPARTMENTAL ELECTIVES OF YOUR CHOOSING.

	Course	Units
Capstone Senior Project		
Second Sequence		
Departmental Electives		
<p style="color: red; margin: 0;"><u>Include all completed EE senior electives.</u></p>		Total Units:
		Minimum Required:
		32

Student's Signature

Date

ECE Student Office Approval Signature

Date

Faculty Advisor's Signature

Date