Elective Requirements:
In addition to the above, EE majors must complete 4 additional upper-division courses (minimum of 3 courses from one track). Unlisted graduate-level courses may also be used to fulfill an elective requirement with prior department approval. Most, if not all, elective courses have additional prerequisites. They are subject to change frequently. Please visit [http://courses.soe.ucsc.edu](http://courses.soe.ucsc.edu) to ensure you have met them.

### Communications, Signals, Systems & Controls

- EE 130/L / 230 Optical Fiber Communication
- EE 136 Engineering Electromagnetics
- EE 152 / 252 Intro to Wireless Signals/Systems
- EE 153 / 250 Digital Signal Processing
- EE 154 / 241 Feedback Control Systems
- EE 251 Principles of Digital Communications
- EE 253 Introduction to Information Theory
- EE 261 Error Control Coding
- EE 262 Statistical Signal Processing
- EE 264 Image Processing and Reconstruction
- CMPE 118/L Intro to Mechatronics
- CMPE 150/L Intro Computer Networks
- CMPE 251 Error-Control Coding

### Electronics & Optics

- EE 104 Bio-electronics & Bio-instrumentation
- EE 115 Intro to MEMS Design
- EE 130/L / 230 Optical Fiber Communication
- EE 136 Engineering Electromagnetics
- EE 154 / 241 Feedback Control Systems
- EE 157/L RF Hardware Design/Lab
- EE 172 / 221 Advanced Analog Integrated Circuits
- EE 173/L High Speed Digital Design
- EE 175/L Energy Generation and Control
- EE 176/L Energy Conversion and Control
- EE 177/L Power Electronics
- EE 178 Device Electronics
- EE 180J Advanced Renewable Energy Sources
- EE 211 Introduction to Nanotechnology
- EE 213 Nanomaterialization of Materials
- EE 231 Optical Electronics
- CMPE 118/L Intro to Mechatronics
- CMPE 121/L Microprocessor System Design
- CMPE 167/L Sensing and Sensor Technologies

### Senior Design Project (Choose one):

- **EE 129A Engineering Design Project I**
  - (EE 171L, CE100/L, 185, instructor permission)
- **EE 129B Engineering Design Project II**
  - (EE 129A and one of the following: EE157L, CE118/L, or CE121/L, instructor permission)
- **EE 129C Engineering Design Project III**
  - (EE 129B)
- **EE 195 Senior Thesis**
  - (Department Approval)
  - (12 units, & students must take EE157L or CE118L to fulfill design experience)

### Exit Requirements:

1. Complete an Exit Survey.
2. Attend an Exit Interview with a designated EE faculty.
3. Maintain a 2.5 cumulative GPA in all required and elective courses for the major, OR submit a Portfolio for Department Review, OR submit a Senior Thesis with Department Approval.
Electrical Engineering B.S. Degree
2016-2017 Curriculum Chart

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Notes:
- The School of Engineering has different major declaration deadlines than the UCSC Academic/Administrative calendar. Our deadlines and process can be found on: [https://ua.soe.ucsc.edu/declare-your-major](https://ua.soe.ucsc.edu/declare-your-major)
- All students admitted to a School of Engineering major, or seeking admission to a major, must take all courses required for that major for a letter grade.
- Courses in which you receive a grade of C-, D+, D, or D- earn credit toward graduation, but cannot be used to satisfy a major requirement or a general education requirement, and cannot satisfy a prerequisite for another course.