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 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/ to ensure you have met them.

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**Communications, Signals, Systems & Controls**
- EE 130/L / 230 Optical Fiber Communication
- EE 136 Engineering Electromagnetics (Strongly Recommended)
- 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 to 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 (Strongly Recommended)
- 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 Nanophotonic Materials
- EE 231 Optical Electronics
- CMPE 118/L Intro to Mechatronics
- CMPE 121/L Microprocessor System Design (Strongly Recommended)
- CMPE 167/L Sensing and Sensor Technologies

**Senior Design Project (Choose one):**
- EE 129A Engineering Design Project I
  - (EE 171; CE100/L, 185; instructor permission)
- EE 129B Engineering Design Project II
  - (EE 129A and one of the following: EE157/L, CE118/L, or CE121/L; instructor approval)
- EE 129C Engineering Design Project III
  - (EE 129B)
- EE 195 Senior Thesis
  - (Department Approval)
  - (12 units, & students must take EE157/L or CE118/L 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.

% Students with no prior programming experience are strongly recommended to take course CMPE 3; CMPS 5j, CMPS 5p, CMPS 10 or equivalent before taking this class.
* Preferred, but students can substitute with CMPS 12A/L or CMPS 5j and 13.
** Students who complete Math 21 and Math 24 (or the equivalents) in lieu of AMS 10 & 20 are strongly encouraged to take the MATLAB self-paced tutorial prior to enrolling in EE 101/L.
^ EE 80T recommended, but students can substitute EE 80T with CMPE 80H or TIM 80C.
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**Student Name:**

**Staff Advisor:**

**Faculty Advisor:**