# 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): [http://engineering.ucsb.edu/current_undergraduates/publications/](http://engineering.ucsb.edu/current_undergraduates/publications/)

## Approved Departmental Electives

### Computer Engineering
- ECE123
- ECE124A-D or ECE 122AB
- ECE150
- ECE153A-B

### Control Systems/Robotics
- ECE130C
- ECE141A-B-C (A&C-3 units ea)
- ECE147A-B-C
- ECE181B
- ECE179D
- ECE179P
- ECE183

### Electronic Systems
- ECE124A-D or ECE122AB
- ECE125
- ECE142
- ECE144
- ECE145A-B-C
- ECE146A-B
- ECE148

### Engineering & Technology Management*
- TMP 120
- TMP 122
- TMP 132
- TMP 135

### VLSI Design
- ECE124A-D or ECE122AB
- ECE153AB
- ECE156A-B

### Signal Processing and Communications
- ECE130C
- ECE146A-B
- ECE148
- ECE158
- ECE178
- ECE181B

### Nanotechnology: Material & Devices
- ECE124B-C or 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 188A-B-C (Sr. Design Sequence) (3 units ea)
- ECE 194AA-ZZ (Except 194R)

## Approved Departmental Sequences

### Design Sequences
- ECE 124A & ECE 124D or ECE 122A & ECE 122B
- ECE 124B & ECE 124C or ECE120A & ECE 120B
- ECE 145A & ECE 145B
- ECE 146A & ECE 146B
- ECE 147A & ECE 147B
- ECE 147A & ECE 147C
- ECE 153A & ECE 153B
- ECE 158 & ECE 178
- ECE 188A-B-C (Complete Series to count as sequence; 3 units ea)
- ECE 178 & ECE 181B
- ECE 179D & ECE 179P

### Other Sequences
- ECE 122A & ECE 120A or ECE 124A & ECE 124B
- ECE 123 & ECE 122B
- ECE 141A & ECE 141B (ECE 141A: 3 units)
- ECE 141A & ECE 141C (3 units ea)
- ECE 144 & ECE 135
- ECE 145A & ECE 145C
- ECE 145A & ECE 146A
- ECE 148 & ECE 158
- ECE 148 & ECE 178
- ECE 154A & ECE 155A
- ECE 154A & ECE 154B
- ECE 156A & ECE 156B
- ECE 158 & ECE 181B
- ECE 160 & ECE 178
- ECE 160 & ECE 181B
- ECE 162A & ECE 162B

*Students may count only **ONE** course offered by the Engineering Science/Technology Management program as a departmental elective.

Updated 5/15
# Electrical Engineering

## Schedule of Senior EE Electives

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

<table>
<thead>
<tr>
<th>Last Name, First Name</th>
<th>Umail Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perm Number</td>
<td>Phone Number</td>
</tr>
</tbody>
</table>

**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. Two sequences, one of which must be a design sequence
4. Additional departmental electives of your choosing

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Sequence</td>
<td></td>
</tr>
<tr>
<td>Second Sequence</td>
<td></td>
</tr>
<tr>
<td>Departmental Electives</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units:**

Minimum Required: 32

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**Student’s Signature**

**Date**

**ECE Student Office Approval Signature**

**Date**

**Faculty Advisor’s Signature**

**Date**

Updated 5/15