

**ELECTRICAL ENGINEERING  
MAJOR REQUIREMENTS****FA09-SP13**

ELECTRICAL AND COMPUTER ENGINEERING STUDENT AFFAIRS OFFICE | JACOBS HALL 2701 &amp; 2702 | ECE.UCSD.EDU

- ▶ Due to six different college requirements, only **major** requirements are listed below.
- ▶ ALL courses used to satisfy major requirements must be taken for a **letter grade and passed with a C– or better**.

**Lower Division (68 units)**

**MATH 20A, 20B, 20C, 20D, 20F, 20E | PHYS 2A, 2B, 2C, 2D | CHEM 6A  
ECE 15, 25, 30, 35, 45, 65**

**Upper Division (72 units)****Breadth:**

**ECE 100, 101, 102, 103, 107, 108, 109**

**Depth (5 or 6 courses. Pick one below):****Electronics Circuits and Systems:**

**ECE 163, 164, 165, and any two of ECE 111, 118, 161A, 161B, 161C, and 166.**

**Electronic Devices and Materials:**

**ECE 135A, ECE 135B, 136L, 139, and 183.**

**Controls and Systems Theory:**

**ECE 171A, 171B, 173, 174, and 118 or 191.**

**Machine Intelligence:**

**ECE 173, 174, 172A and any two of ECE 161A, ECE 175, ECE 176A, 187, 253A, 285, and COGS 108F.**

**Photonics:**

**ECE 181, 182, 183, 184, and 185.**

**Communications Systems:**

**ECE 161A, 153, 154A-B-C.**

**Networks:**

**ECE 153, 159A, 159B, 158A-B.**

**Queuing Systems:**

**ECE 171A, 174, 159A-B, and Math. 181A.**

**Signal and Image Processing:**

**ECE 161A, 161B, 161C, 153, and ECE 172A or 174.**

**Computer Design:**

**CSE 12, 21, and 141, ECE 158A, 111 or 118, and 165.**

**Software Systems:**

**CSE 12, 21, 100, 101, 141, and 120.**

**Technical Electives:**

**three upper division engineering, math, or physics courses**

**Professional Electives:**

**three upper-division courses (2 courses if Computer Design or Software Systems is chosen as a Depth).**

**Design:**

**one of ECE 111, 118, 155B, 155C, 190, or 191**