## MAJOR REQUIREMENTS

### Lower Division Requirements
- CHEM 6A (General Chemistry I)
- MATH 20A (Calculus I)
- MATH 20B (Calculus II)
- MATH 20C (Calculus III)
- MATH 20D (Differential Equations)
- MATH 20E (Vector Calculus)
- MATH 20F (Linear Algebra)
- PHYS 2A (Mechanics)
- PHYS 2B (Electricity and Magnetism)
- PHYS 2C (Fluid, Wave, Thermodynamics, Optics)
- PHYS 2D (Relativity & Quantum)

EE Majors only: PHYS 2DL

EP Majors only: MATH 18 (Linear Algebra)

EE Majors: 5 courses
- ECE 15
- ECE 45
- ECE 30
- ECE 25
- MATH 20E

EP Majors: 7 courses
- ECE 25 (Intro to Digital Design)
- ECE 30 (Intro to Computer Engineering)
- ECE 35 (Intro to Analog Design)
- ECE 45 (Circuits & Systems)
- ECE 65 (Components & Circuits Lab)

EE & Society Majors only: 2 courses in Social Sciences/Humanities
- ECE 30
- ECE 35

### Upper Division Requirements
- ECE 100 (Linear Electronic Systems)
- ECE 101 (Linear Systems Fundamentals)
- ECE 102 (Intro to Active Circuit Design)
- ECE 103 (Fundamentals/Devises & Materials)
- ECE 107 (Electromagnetism)
- ECE 109 (Eng. Probability & Stats)

EE Majors: 5 courses
- Depth #1
- Depth #2
- Depth #3
- Elective #1
- Elective #2

EP Majors: 7 courses
- MATH 110A
- PHYS 110A
- PHYS 130A
- PHYS 130B
- PHYS 140A

EE & Society Majors: 6 courses
- Eng. Design
- Elective #1
- Elective #2
- Elective #3
- Elective #4
- Elective #5

### Design Course
- ECE 111, 118, 191, or 190

### Electives
- EE Majors: 3 Professional and 4 Technical
- EP Majors: 3 Professional and 2 Technical
- EE & Society Majors: 4 Technical

### DEPTHS
- Communication Systems: ECE 153, ECE 154A, ECE 154B, ECE 154C, and ECE 158A
- Electronics Circuits & Systems: ECE 163, ECE 164, ECE 165, ECE 166
- Electronic Devices & Materials: ECE 135A, ECE 135B, ECE 136L, ECE 183
- Machine Learning & Controls: ECE 171A, ECE 174, ECE 175A, one of ECE 171B, ECE 172A, or ECE 172B
- Photonics: ECE 181, ECE 182, ECE 183, and either ECE 184 or ECE 185
- Signal and Image Processing: ECE 153, ECE 161A, ECE 161B, ECE 161C
- Computer System Design: CSE 141, ECE 165 and any two of ECE 118, ECE 158A, ECE 111 or CSE 143

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**PLEASE NOTE:** All courses used to satisfy major requirements must be taken for a LETTER GRADE.

These plans assume that students have completed equivalent lower division MATH, PHYS and CHEM courses at the community college that are required for the major.

Due to six different college requirements, only major requirements are listed.
### Engineering Physics (B.S.)

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**Please Note:**
PHYS 2DL and PHYS 130A have prerequisites that are not listed above. PHYS 2DL requires PHYS 2BL or 2CL. PHYS 130A requires 100B and 110A. PHYS 100B requires PHYS 100A, 105A and MATH 18. The upper division prerequisites can be applied towards elective requirements.

* ECE 123 & 166 or ECE 135A & 135B or ECE 182 & (181 or 183):
The 2 depth courses indicated * are not always offered in fall and winter, consult with the ECE Undergraduate Office for more detailed information or visit our website.

### Electrical Engineering and Society (B.A.)

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ECE Undergraduate Student Affairs Office | Jacobs Hall 2701 & n2702 | ece.ucsd.edu
Questions? Go to vac.ucsd.edu
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