

# ELECTRICAL ENGINEERING

CALIFORNIA STATE UNIVERSITY, FRESNO

## 2024-2025 CATALOG

The suggested program of study on this page is for general information and academic planning purposes and is not a substitute for the University Catalog. Consult the 2024-2025 University Catalog for more detailed information.

### FIRST SEMESTER

<b>ENGR 1</b>	<b>Intro to Engineering</b>	<b>1</b>
Area A1	Comm 3, 7, 8	3
Area A2	Engl 10 Composition or 5A&B	3
Area B4	Math 75 Math. Analysis I	4
Area B2	Biol 10 (life science)	3
		<b>14</b>

### SECOND SEMESTER

ECE 1	Intro to EE and CompE	1
<b>ECE 72</b>	<b>Intro to EE/CompE Engr Tools</b>	<b>2</b>
Math 76	Mathematical Analysis II	4
Phys 4A	Mechanics	3
Area B1	Chem. 3A General Chem.	4
Area C2	Phil <sup>1</sup>	3
		<b>17</b>

### THIRD SEMESTER

<b>ECE 71</b>	<b>Engineering Computations</b>	<b>4</b>
ECE 85	Digital Logic Design	3
ECE 85L	Digital Logic Design Lab	1
Math 77	Mathematical Analysis III	4
Phys 4B	Elect., Magn. and Heat	3
Phys 4BL	Elect., Magn. and Heat Lab	1
		<b>16</b>

### FOURTH SEMESTER

ECE 90	Prin. of Electrical Circuits	3
ECE 90L	Prin. of Elect. Circuits Lab	1
ECE 118	Microp. Arch. And Prog.	3
ECE 118L	Computer Systems Lab	1
Math 81/Engr 101		3
<b>ECE 111</b>	<b>OPT Engr</b>	<b>3</b>
PLSci 2 (Grad. Requirement)		3
		<b>17</b>

### FIFTH SEMESTER

<b>ECE 102</b>	<b>Advanced Circuit Analysis</b>	<b>3</b>
ECE 103	Professional Development Skills	1
ECE 126	Electromagnetics I	3
ECE 128	Electronics I	3
ECE 128L	Electronics I lab.	1
<b>ME 29 (Statics) or ME 136 (Thermo)</b>		<b>3</b>
		<b>14</b>

### SIXTH SEMESTER

<b>ECE 123</b>	<b>Discrete-time Signal Processing</b>	<b>3</b>
<b>ECE 124L</b>	<b>Signals and Systems Lab</b>	<b>1</b>
ECE 121	Energy Conversion	3
ECE 125	Probabilistic Engr. Sys. Analy.	3
ECE 138	Electronics II	3
ECE 138L	Electronics II Lab	1
ECE 155	Control Systems	3
		<b>17</b>

### SEVENTH SEMESTER

ECE 134	Communications	3
ECE 186A	Senior Design I	1
_____	Technical Area Course <sup>2</sup>	3
_____	Senior Lab <sup>3</sup>	1
Area D1	Hist 11, 12	3
<b>Area D2: Econ 40 or 50 (Micro or Macro)</b>		<b>3</b>
		<b>14</b>

### EIGHTH SEMESTER

Area IB	ECE 186B Sen. Design	3
_____	Technical Area Course <sup>2</sup>	3
_____	Technical Area Course <sup>2</sup>	3
_____	Math Elective <sup>4</sup>	3
<b>Area F2<sup>5</sup> – Ethnic Studies</b>		<b>3</b>
		<b>15</b>

**Total units for the program**

**124**

1. Area C2: Phil 1 or 2 or 10 or 20
2. Select from the list of Technical Area Courses including labs
3. Select from: ECE 155L, ECE 119L, ECE 121L; ECE 134L, ECE 136L
4. Select from: ENGR 102, Math 121, Math 123, Math 128, Math 152, Math 171, Math 181, Math 182
5. *Interdisciplinary and comparative study of race and ethnicity – Lower division GE area Foundation, Breath, and Integration*

## **General Education**

Area A1: Communication 3, 7, or 8

Area A2: Engl 10 or Engl 5A & 5B

**Area A3: Exempt**

Area B1: Chem 3A

Area B2: Bio 10 or 1A

Area B3: Phys 4BL

Area B4: Math 75 (*A student who has earned 15 units will get a warning pop-up if not passed or not registered in the B4 course. A student who has earned 30 units and has not passed or not registered in the B4 course will get the hold pop-up at the time of registration.*)

**Area C1: Exempt**

Area C2: Phil 1 or 2 or 10 or 20

Area D1: Hist 11 or 12

Area D2: Econ 40 or 50

**Area E: Exempt**

**Area F: Any upper or lower division GE area F**

**Area IB:** Exempt/ECE 186B

**Area IC:** Exempt

**Area ID:** Exempt/ECE 118

**Graduation Requirement: PLCI 2**