ELECTRICAL ENGINEERING

CALIFORNIA STATE UNIVERSITY, FRESNO

2025-2026 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 2025-2026 University Catalog for more detailed information.

| | FIRST SEMESTER | Units | | SECOND SEMESTER | Units |
|---|---|-----------------------|---|--|-----------------------|
| ENGR 1 | Introduction to Engineering | 1 | ECE 1 | Intro to EE and CompE | 1 |
| Area 1A | ENGL 10 Composition or 5A&B | 3 | ECE 72 | Intro to Elec/Comp Engr Tools | 2 |
| Area 1C | COMM 3, 7, or 8 | 3 | MATH 76 | Calculus II | 4 |
| Area 2 | MATH 75 Calculus I | 4 | PHYS 4A | Mechanics and Wave Motion | 3 |
| Area 5B | BIO 10 Life Science | 3 | Area 3B | PHIL 1, 2, 10, or 20 | 3 |
| | | | Area 5A | Chem 3A Intro Gen Chemistry | 4 |
| | Total First Semester Units: | 14 | | Total Second Semester Units: | 17 |
| | | | | | |
| | THIRD SEMESTER | Units | | FOURTH SEMESTER | Units |
| ECE 71 | THIRD SEMESTER Intro to Computational Prog | Units 3 | ECE 90 | FOURTH SEMESTER Principles of Electrical Circuits | Units 3 |
| ECE 71 ECE 85 | | | ECE 90 ECE 90L | Principles of Electrical Circuits | |
| _ | Intro to Computational Prog Digital Logic Design | 3 | ECE 90L | Principles of Electrical Circuits | 3 |
| ECE 85 ECE 85L | Intro to Computational Prog Digital Logic Design | 3 | ECE 90L ECE 118 | Principles of Electrical Circuits Principles of Elect Circuits Lab | 3 |
| ECE 85 ECE 85L MATH 77 | Intro to Computational Prog Digital Logic Design Digital Logic Design Lab | 3 3 1 | ECE 90L ECE 118 ECE 118L | Principles of Electrical Circuits Principles of Elect Circuits Lab Microprocessor Arch and Prog | 3 1 |
| ECE 85 ECE 85L MATH 77 PHYS 4B | Intro to Computational Prog Digital Logic Design Digital Logic Design Lab Calculus III | 3 3 1 4 | ECE 90L ECE 118 ECE 118L MATH 81 | Principles of Electrical Circuits Principles of Elect Circuits Lab Microprocessor Arch and Prog Microcontroller Lab | 3 1 3 1 |
| ECE 85 ECE 85L MATH 77 PHYS 4B | Intro to Computational Prog Digital Logic Design Digital Logic Design Lab Calculus III Electricity, Magnetism, and Heat | 3 3 1 4 3 | ECE 90L ECE 118 ECE 118L MATH 81 | Principles of Electrical Circuits Principles of Elect Circuits Lab Microprocessor Arch and Prog Microcontroller Lab / ENGR 101 | 3 1 3 1 3 |

| FIFTH SEMESTER | Units | SIXTH SEMESTER | Units |
|--|-------|---|-------|
| ECE 102 Advanced Circuit Analysis | 3 | ECE 123 Discrete Time Signals and Sys | 3 |
| ECE 103E Professional Develop Skills | 1 | ECE 124L Signal and Systems Lab | 1 |
| ECE 126 Electromagnetics I | 3 | ECE 121 Energy Conversion | 3 |
| ECE 128 Electronics I | 3 | ECE 125 Probabilistic Engr Sys Analysis | 3 |
| ECE 128L Electronics I Lab | 1 | ECE 138 Electronics II | 3 |
| ME 29 Statics or ME 136 Thermodynamics | 3 | ECE 138L Electronics II Lab | 1 |
| | | ECE 155 Control Systems | 3 |
| Total Fifth Semester Units: | 14 | Total Sixth Semester Units: | 17 |

| | SEVENTH SEMESTER | Units | EIGHTH SEMESTER | Units |
|--------------------------|--------------------------------------|-------|------------------------------------|-------|
| ECE 134 | Communication Engineering | 3 | ECE 186B Senior Design II | 3 |
| ECE 186A Senior Design I | | 1 | Technical Area Course ¹ | 3 |
| | Technical Area Course ¹ | 3 | Technical Area Course ¹ | 3 |
| | Senior Lab ² | 1 | Technical Area Course ¹ | 3 |
| Area 4A | HIST 11, 12 | 3 | Senior Lab ² | 1 |
| Area 4B | ECON 40 Micro/ECON 50 Macro | 3 | Area 6 Ethnic Studies | 3 |
| | Total Seventh Semester Units: | 14 | Total Eighth Semester Units: | 16 |

Total units for the program:

- 1. Select from the list of Technical Area Courses, including labs
- 2. Select from: ECE 155L, ECE 119L, ECE 121L; ECE 134L, ECE 136L
- 3. Select from: ENGR 102, Math 121, Math 123, Math 128, Math 152, Math 171, Math 181, Math 182
- 4. Upper division writing requirement can be fulfilled by any W course

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General Education

Area 1A: ENGL 10 or ENGL 5A & 5B

Area 1B: Exempt

Area 1C: COMM 3, 7, or 8

Area 2: MATH 75

Area 3A: Exempt

Area 3B: PHIL 1, 2, 10, or 20

Area 4A: HIST 11 or 12 Area 4B: ECON 40 or 50

Area 5A: CHEM 3A
Area 5B: BIO 10 or 1A
Area 5C: PHYS 4BL

Area 6: Any upper or lower division GE area F

Area UD 3: Exempt
Area UD 4: ECE 118
Area UD 5: ECE 186B

Additional Fresno State Graduation Requirements

US & CA Gov: PLSI 2
A/H: Exempt
L/S: Exempt
M/I: Exempt