

ELECTRICAL ENGINEERING MAJOR

Plan of Study

A typical, full-time, four-year plan of study appears below. Some variation may be possible. Students should always discuss their individual plan of study with their advisor prior to registering for courses.

| Course | Title | Credits |
|--|---|-----------|
| First Year | | |
| Fall | | |
| ENGR 1031 | Fundamentals of Engineering | 3 |
| MATH 1141 | Calculus I for Chemistry, Engineering, and Physics Majors | 4 |
| PHYS 1171 | General Physics I | 3 |
| PHYS 1171L | General Physics I Lab | 1 |
| History Orientation Tier ¹ | | 3 |
| Modern/Classical Language Orientation Tier ⁵ | | 3 |
| Credits | | 17 |
| Spring | | |
| CPSC 1131 | Fundamentals of Programming | 3 |
| ENGR 2130 | Engineering Graphics I | 3 |
| ENGL 1001 | Introduction to Rhetoric and Composition | 3 |
| MATH 1142 | Calculus II for Chemistry, Engineering, and Physics Majors | 4 |
| PHYS 1172 | General Physics II | 3 |
| PHYS 1172L | General Physics II Lab | 1 |
| Credits | | 17 |
| Second Year | | |
| Fall | | |
| ELEG 2213 | Introduction to Electric Circuits | 3 |
| ELEG 2213L | Electric Circuits Lab | 1 |
| MATH 2243 | Calculus III for Chemistry, Engineering, and Physics Majors | 4 |
| History or Philosophy or Religious Studies Exploration Tier ² | | 3 |
| Natural Science Elective (with lab) | | 4 |
| Credits | | 15 |
| Spring | | |
| CPEG 2245 | Digital Design I | 3 |
| CPEG 2245L | Digital Design I Lab | 1 |
| ELEG 2221 | Frequency Domain Circuit Analysis | 3 |
| ENGR 2145 | Mathematical Analysis | 3 |
| MATH 2251 | Ordinary Differential Equations | 3 |
| Behavioral and Social Sciences Exploration Tier ³ | | 3 |
| Credits | | 16 |
| Third Year | | |
| Fall | | |
| ELEG 3231 | Introduction to Electronics Circuits and Devices | 3 |
| ELEG 3231L | Electronics Circuits Lab | 1 |
| ELEG 3301 | Signal and Systems I | 3 |

| | | |
|---|-------------------------------|---|
| ELEG 3348 | Embedded Microcontrollers | 3 |
| ELEG 3348L | Embedded Microcontrollers Lab | 1 |
| MATH 3351 | Probability Theory | 3 |
| Religious Studies Orientation Tier ¹ | | 3 |

Credits 17

Spring

| | | |
|--|----------------------------|---|
| ELEG 4331 | Analog Electronics Design | 3 |
| ELEG 4331L | Analog Electronics Lab | 1 |
| ENGR 4301 | Feedback Control Systems | 3 |
| PHIL 1101 | Introduction to Philosophy | 3 |
| Major Elective | | 3 |
| Behavioral and Social Sciences Exploration Tier ³ | | 3 |

Credits 16

Fourth Year

Fall

| | | |
|--|---------------------------|---|
| PHYS 3271 | Electricity and Magnetism | 3 |
| ENGR 4961 | Senior Design Project I | 3 |
| Literature Exploration Tier ⁷ | | 3 |
| Mechanical Elective ⁴ | | 3 |
| Major Elective ⁴ | | 3 |

Credits 15

Spring

| | | |
|--|--------------------------|---|
| ENGR 4962 | Senior Design Project II | 3 |
| Major Elective ⁴ | | 3 |
| Major Elective ⁴ | | 3 |
| History or Philosophy or Religious Studies Exploration Tier ² | | 3 |
| Visual and Performing Arts Exploration Tier ⁶ | | 3 |

Credits 15

Total Credits 128

¹ Choose an appropriate History or Religious Studies course at the 1000 level.

² Choose any appropriate Religious Studies, History, or Philosophy core course.

³ Core Social Science course may be fulfilled by appropriate courses in Communication, Economics, Psychology, Politics, or Sociology and Anthropology.

⁴ Major electives are chosen from the department, but may be chosen with approval of advisor and department chair from among other courses offered in the School of Engineering and Computing.

⁵ Choose any language offered by the Department of Modern Languages and Literatures, based on placement exam.

⁶ Visual and Performing Art History courses may be chosen from Art History, Music, Film, Television, and Media Arts, Studio Art, or Theatre.

⁷ Approved English, Modern Languages and Literatures, or Classics courses.