

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.