Electrical Engineering Course Plan

Catalog Year 2022-2023

Legend

* Major Requirement

Must be taken to fulfill major requirements.

† Major Elective

Must be taken to fulfill major requirements, or replaced with an equivalent course.

‡ Gen-Ed Requirement

Must be taken to fulfill general education requirements.

§ Elective

Can be chosen from a selection of courses.

See MyGFU for detailed academic requirements.

First Year

Fall Semester

Engineering Principles I (ENGR 151) *	3 credits
General Chemistry I (CHEM 211) *	4 credits
Calculus I (MATH 201) *	4 credits
The Bible (THEO 101) ‡	3 credits
Caring for Words (WRIT 111) ‡	3 credits
Semester Total	**17 credits**
Cumulative Total	**17 credits**

Spring Semester

Engineering Principles II (ENGR 152) *	3 credits
General Physics with Calculus I (PHYS 211) *	4 credits
Calculus II (MATH 202) *	4 credits
Christianity (THEO 102) ‡	3 credits
Communication in Society (COMM 111) ‡	3 credits
Semester Total	**17 credits**
Cumulative Total	**34 credits**

Second Year

Fall Semester

Digital Logic Design (ENGE 220) *	4 credits
Math/Science Elective (see catalog) †	3 credits
General Physics with Calculus (PHYS 212) *	4 credits
Differential Equations w/ Linear Algebra (MATH 311) *	4 credits
Personhood (PSYC 100) ‡	3 credits
Semester Total	**18 credits**
Cumulative Total	**52 credits**

Spring Semester

Electrical Circuit Analysis (ENGE 250) *	4 credits
Electrical Power Systems (ENGE 270) *	3 credits
Introduction to Computer Science II (CSIS 202) *	3 credits
Calculus III (MATH 301) *	3 credits
Principles of Economics (ECON 200) *	3 credits
Semester Total	**16 credits**
Cumulative Total	**68 credits**

Third Year

Fall Semester

Servant Engineering I (ENGR 381) *	2 credits
Electronic Devices & Circuits (ENGE 311) *	4 credits
Microprocessor Architecture (ENGE 320) *	4 credits
Electrical Signals & Networks (ENGE 330) *	3 credits
Math Elective (see catalog) †	3 credits
Semester Total	**16 credits**
Cumulative Total	**84 credits**

Spring Semester

Servant Engineering II (ENGR 382) *	2 credits
Applications of Electronic Devices (ENGE 312) *	4 credits
Electromagnetic Fields & Waves (ENGE 360) *	3 credits
Embedded Systems Design (ENGE 420) *	3 credits
Justice (SSCI 100) ‡	3 credits
Semester Total	**15 credits**
Cumulative Total	**99 credits**

Fourth Year

Fall Semester

Senior Design I (ENGR 481) *	1 credits
Engineering Senior Seminar (ENGR 490) *	1 credits
Communication Systems (ENGE 430) *	3 credits
Power Electronics & Renewable Energy (ENGE 470) *	3 credits
Ethics (THEO 380) ‡	3 credits
Faith and Story (LITR 111) ‡	3 credits
Semester Total	**14 credits**
Cumulative Total	**113 credits**

Spring Semester

Senior Design II (ENGR 482) *	3 credits
Microwave Engineering & Applications (ENGE 460) *	3 credits
Digital Signal Processing (ENGE 480) *	3 credits
The Modern and Postmodern World (HIST 111) ‡	3 credits
Art and Global Culture (ARTP/V 120) ‡	3 credits
Semester Total	**15 credits**
Cumulative Total	**128 credits**

Notes