Electrical Engineering Course Plan

Catalog Year 2019-2020

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 (CHEM 211) *	4 credits
Calculus I (MATH 201) *	4 credits
I Believe I (THEO 101) ‡	3 credits
Knowing and Being Known (LIBA 100) ‡	3 credits
Semester Total	**17 credits**
Cumulative Total	**17 credits**

Spring Semester

Engineering Principles II (ENGR 152) *	3 credits
General Physics with Calculus (PHYS 211) *	4 credits
Calculus II (MATH 202) *	4 credits
I Believe II (THEO 102) ‡	3 credits
Introduction to Communication (COMM 100) ‡	3 credits
Semester Total	**17 credits**
Cumulative Total	**34 credits**

Second Year

Fall Semester

Digital Logic Design (ENGE 220) *	4 credits
Math/Science Elective †	3 credits
General Physics with Calculus (PHYS 212) *	4 credits
Differential Equations (MATH 311) *	4 credits
Lifelong Fitness (HHPA 120) ‡	2 credits
Semester Total	**17 credits**
Cumulative Total	**51 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
Philosophy & Literature (HUMA 205) ‡	3 credits
Semester Total	**16 credits**
Cumulative Total	**67 credits**

Third Year

Fall Semester

Servant Engineering I (ENGR 381) *	2 credits
Electronic Devices and Circuits (ENGE 311) *	4 credits
Microprocessor Architecture (ENGE 320) *	4 credits
Electrical Signals and Networks (ENGE 330) *	3 credits
Math Elective †	3 credits
Semester Total	**16 credits**
Cumulative Total	**83 credits**

Spring Semester

Servant Engineering II (ENGR 382) *	2 credits
Applications of Electronic Devices (ENGE 312) *	4 credits
Electromagnetic Fields and Waves (ENGE 360) *	3 credits
Embedded Systems Design (ENGE 420) *	3 credits
Intercultural GE Requirement ‡	3 credits
Semester Total	**15 credits**
Cumulative Total	**98 credits**

Fourth Year

Fall Semester

Senior Design I (ENGR 481) *	1 credits
ENGR Senior Seminar (ENGR 490) *	1 credits
Microwave Eng. And Applications (ENGE 460) *	3 credits
Power Electronics & Renewable Energy (ENGE 470) *	3 credits
Bible Elective GE Requirement ‡	3 credits
Christianity and Culture (LIBA 400) ‡	3 credits
ECON 201 or ECON 202 ‡	3 credits
Semester Total	**17 credits**
Cumulative Total	**115 credits**

Spring Semester

Senior Design II (ENGR 482) *	3 credits
Communication Systems (ENGE 430) *	3 credits
Digital Signal Processing (ENGE 480) *	3 credits
History/Politics/International Affairs GE Requirement ‡	3 credits
HUMA 290 Art, Beauty and Truth ‡	3 credits
Semester Total	**15 credits**
Cumulative Total	**130 credits**

Notes