School of Engineering and Technology
BS Degree in Electrical Engineering
(For Students Entering the Program in the 2016-2017 Academic Year)

Freshman Year – Fall Semester

CHEM-115 General Chemistry (4,3)	5
EGNR-101 Introduction to Engineering (1,2)	2
ENGL-110 First-Year Composition I (3,0)	3
MATH-151 Calculus I (4,0)	4
Social Science Elective (3,0)	3
	17

Freshman Year – Spring Semester

EGEE-125 Digital Fundamentals (3,2)	4
EGNR-140 Linear Algebra and Num Methods for Engineers (1,3)	2
ENGL-111 First-Year Composition II (3,0)	3
MATH-152 Calculus II (4,0)	4
Social Science Elective (3,0)	3
	16

Sophomore Year – Fall Semester

EGEE-250 Microcontroller Fundamentals (3,2)	4
EGEE-280 Introduction to Signal Processing (4,0)	4
MATH-251 Calculus III (4,0)	4
PHYS-231 Applied Physics for Engineers and Scientists I (3,2)	4
	16

Sophomore Year – Spring Semester

EGEE-210 Circuit Analysis (3,2)	4
EGNR-265 C Programming (3,0)	3
MATH-310 Differential Equations (3,0)	3
PHYS-232 Applied Physics for Engineers and Scientists II (3,2)	4
Humanities Elective (3,0)	3
	17

Junior Year – Fall Semester

[†]**EGEE-310** Network Analysis (4,0)	4
EGEE-370 Electronic Devices (3,3)	4
EGNR-340 Advanced Numerical Apps for Engineers (0,2)	1
EGNR-346 Probability and Statistics Lab for Engineers (0,2)	1
MATH-308 Probability and Mathematical Statistics (3,0)	3
Communication Elective (3,0)	3
	16

Junior Year – Spring Semester

[†]**EGEE-345** Fundamentals of Engineering Electromagnetics (3,0)	3
EGEE-475 Power Electronics (3,3)	4
EGEM-220 Statics (3,0)	3
Cultural Diversity Elective (3,0)	3
Concentration/Technical Elective / Engineering Option	4
	17

Senior Year – Fall Semester

[†]**EGEE-330** Electro-Mechanical Systems (3,2)	4
EGNR-491 Engineering Design Project I (2,3)	3
EGRS-460 Control Systems (3,3)	4
Concentration/Technical Elective / Engineering Option	4
	15

Senior Year – Spring Semester

EGNR-495 Engineering Design Project II (1,6)	3
Humanities Elective (3 or 4 cr)	4
Concentration/Technical Elective / Engineering Option	4
Concentration/Technical Elective / Engineering Option	3
	14

Total Credits: 128

General Technical Electives (14 cr)

EGME-225 or higher
EGET-310
MATH-215 or higher
Any course from concentrations

Robotics & Automation Concentration (14 cr)

EGRS-385 Robotics Engineering (3,3)
EGRS-430 Sys Integration and Machine Vision (3,3)
EGRS-435 Automated Manufacturing Systems (2,3)
General Technical Elective

Digital Systems Concentration (14 cr)

[†]**EGEE-320** Digital Design (3,3)
[†]**EGEE-355** Microcontroller Systems (3,3)
[†]**EGEE-425** Digital Signal Processing (2,2)
General Technical Elective

Renewable Energy Concentration (14 cr)

EGNR-261 Energy Systems (3,0)
[†]**EGNR-361** Energy Systems Lab (0,3)
[†]**EGEE-411** Power Distribution & Trans (3,0)
[†]***EGNR-362** Vehicle Energy Systems (2,3)
***EGME-337** Thermodynamics (4,0)
*= must take one of the two
General Technical Elective

[†]=course offered only every other year