

BS Degree in Electrical Engineering

(For students entering the program in the 2010-2011 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
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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
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Sophomore Year – Fall Semester

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

EGEE-210 Circuit Analysis (3,2)	4
EGNR-265 C Programming (3,0)	3
EGNR-340 Advanced Numerical Apps for Engineers (0,2)	1
MATH-310 Differential Equations (3,0)	3
PHYS-232 Applied Physics for Engineers and Scientists II (3,2)	4
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Junior Year – Fall Semester

COMM-101 Fundamentals of Speech Communication (3,0)	3
EGEE-310 Network Analysis (4,0)	4
EGEE-370 Electronic Devices (3,3)	4
EGEM-220 Statics (3,0)	3
Humanities Elective (3,0)	3
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Junior Year – Spring Semester

EGEE-345 Fundamentals of Engineering Electromagnetics (3,0)	3
EGEE-375 Electronic Circuits (3,3)	4
EGNR-346 Probability and Statistics Lab for Engineers (0,2)	1
MATH-308 Probability and Mathematical Statistics (3,0)	3
Cultural Diversity Elective (3,0)	3
Technical Elective / Engineering Option	3
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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
Technical Elective / Engineering Option	4
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Senior Year – Spring Semester

EGNR-495 Engineering Design Project II (1,6)	3
EGRS-461 Design of Control Systems (3,3)	4
HUMN-251 Humanities I (4,0)	4
Technical Elective / Engineering Option	4
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Total Credits: 128

Robotics and Automation Option

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

Digital Systems Option

EGEE-320 Digital Design (3,3)
EGEE-355 Microcontroller Systems (3,3)
EGEE-425 Digital Signal Processing (2,2)

Electrical/Mechanical Option

EGEM-320 Dynamics (3,0)
EGME-225 Mechanics of Materials I (3,0)
EGME-337 Thermodynamics (4,0)

Vehicle Systems Option

EGEE-365 Vehicle Instrumentation (3,3)
EGEM-320 Dynamics (3,0)
EGME-310 Vehicle Development and Testing (1,2)
EGME-411 Vehicle Dynamics (2,0)