

**BS Degree in Computer Engineering**  
(For students entering the program in the 2011-2012 academic year)

*Freshman Year – Fall Semester*

EGNR-101 Introduction to Engineering (1,2)	2
CHEM-115 General Chemistry (4,3)	5
CSCI-105 Introduction to Computer Programming (2,2)	3
ENGL-110 First-Year Composition I (3,0)	3
MATH-151 Calculus I (4,0)	4
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*Freshman Year – Spring Semester*

CSCI-121 Principles of Programming (3,0)	3
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
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*Sophomore Year – Fall Semester*

CSCI-122 Programming Tools and Techniques (3,0)	3
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*

COMM-101 Fundamentals of Speech Communication (3,0)	3
CSCI-2XX Computer Science Core Elective (3,0)	3
EGEE-210 Circuit Analysis (3,2)	4
PHYS-232 Applied Physics for Engineers and Scientists II (3,2)	4
MATH-310 Differential Equations (3,0)	3
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*Junior Year – Fall Semester*

CSCI-341 Discrete Structures for Computer Science (4,0)	4
EGEE-250 Microcontroller Fundamentals (3,2)	4
EGEE-370 Electronic Devices (3,3)	4
EGNR-340 Advanced Numerical Apps for Engineers (0,2)	1
Social Science Elective (3,0)	3
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*Junior Year – Spring Semester*

EGEE-345 Fundamentals of Engineering Electromagnetics (3,0)	3
EGEE-355 Microcontroller Systems (3,3)	4
EGNR-346 Probability and Statistics Lab for Engineers (0,2)	1
MATH-308 Probability and Mathematical Statistics (3,0)	3
Technical Elective / Engineering Option	3
Humanities Elective (3,0)	3
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*Senior Year – Fall Semester*

EGEE-320 Digital Design (3,3)	4
EGNR-491 Engineering Design Project I (2,3)	3
HUMN-251 Humanities I (4,0)	4
Technical Elective / Engineering Option	4
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*Senior Year – Spring Semester*

EGEE-425 Digital Signal Processing (2,2)	3
EGNR-495 Engineering Design Project II (1,6)	3
Technical Elective / Engineering Option	4
Cultural Diversity Elective (3,0)	3
Social Science Elective (3,0)	3
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*Total Credits: 129*

Computer Science Core Elective Courses

CSCI-201 Data Structures and Algorithms (3,0)      CSCI-221 Computer Networks (3,0)

General Option

MATH-215 or higher  
EGEE-310 or higher  
EGME-225 or higher  
CSCI-271 or higher  
EGEM-220, 320  
EGRS-385, 430, 435, 460, 461

Control Systems Option

EGEM-220 Statics (3,0)  
EGRS-460 Control Systems (3,3)  
EGRS-461 Design of Control Systems (3,3)

Robotics and Automation Option

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