

School of Engineering and Technology

BS Degree in Computer Engineering

(For Students Entering the Program in the 2021-2022 Academic Year)

Freshman Year – Fall Semester (21')

CHEM-115 General Chemistry (4,3)	5
CSCI-105 Introduction to Computer Programming (2,2)	3
EGNR-101 Introduction to Engineering (1,2)	2
ENGL-110 First-Year Composition I (3,0)	3
MATH-151 Calculus I (4,0)	4
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Freshman Year – Spring Semester (22')

CSCI-121 Principles of Programming (4,0)	4
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 (22')

CSCI-201 Data Structures and Algorithms (4,0)	4
EGEE-250 Microcontroller Fundamentals (3,2)	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 (23')

EGEE-210 Circuit Analysis (3,2)	4
MATH-310 Differential Equations (3,0)	3
PHYS-232 Applied Physics for Engineers and Scientists II (3,2)	4
Communication Elective (3,0)	3
Social Science Elective (3,0)	3
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Junior Year – Fall Semester (23')

MATH-308 Probability and Mathematical Statistics (3,0)	3
EGEE-280 Introduction to Signal Processing (4,0)	4
EGEE-370 Electronic Devices (3,3)	4
Concentration/Technical Elective / Engineering Option	4
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Junior Year – Spring Semester (24')

[†] EGEE-355 Microcontroller Systems (3,3)	4
Concentration/Technical Elective / Engineering Option	3
Humanities Elective	3
[†] CSCI-434 Operating System Concepts (3,0)	3
EGNR-346 Probability and Statistics Lab for Engineers (0,2)	1
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Senior Year – Fall Semester (24')

EGNR-491 Engineering Design Project I (2,3)	3
[†] EGEE-320 Digital Design (3,3)	4
Social Science Elective (3,0)	3
EGNR-340 Advanced Numerical Apps for Engineers (0,2)	1
Concentration/Tech Elec or Discrete Math Core Elective	3
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Senior Year – Spring Semester (25')

EGNR-495 Engineering Design Project II (1,6)	3
Concentration/Tech Elective	3
Concentration/Tech Elec or Discrete Math Core Elective	3
Cultural Diversity Elective (3,0)	3
Humanities Elective (3,0)	3
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Total Credits: 125

Discrete Mathematics Core Elective Courses

[†]**CSCI-341** Discrete Structures for Computer Science (4,0) 4 (*Even Fall*) [†]**EGEE-425** Digital Signal Processing (2,2) 3 (*Odd Spring*)

General Technical Electives (13 cr)

CSCI-281 or higher
EGEE-310 or higher
EGEM-220, EGEM-320, EGET-310
EGME-275 or higher
EGNR-261, EGNR-361, EGNR-362
EGRS-365, EGRS-372, EGRS-460 or higher
MATH-215 or higher
 Any course from concentration

Robotics & Automation Concentration (13 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

[†]=course offered only every other year