

**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING**  
**COMBINED MAJOR - COMPUTER ENGINEERING AND COMPUTER SCIENCE**  
**CURRICULUM OUTLINE - CLASS OF 2021, 2022, 2023**

*Sample Only – Actual Curriculum Sequence May Deviate from Sample*

	FALL	SPRING	SUMMER 1	SUMMER 2
<b>Year 1</b>	MATH1341 Calculus 1 for Engrs. 4 CHEM1151 General Chem. for Engrs. 0 CHEM1153 Recitation for CHEM1151 4 GE1000 Intro to Eng'g 1 GE1501 Cornerstone of Engineering 1 4 ENGW1111 College Writing 4	MATH1342 Calculus 2 for Engrs. 4 PHYS1151 Physics 1 for Engrs. 3 PHYS1152 Physics 1 Lab 1 PHYS1153 ILS for PHYS1151 1 GE1502 Cornerstone of Engineering 2 4 Elective General Elective 4	Vacation	Vacation
<b>Year 2 AA</b>	MATH2341 Diff. Eq./Lin. Alg. 4 PHYS1155 Physics 2 for Engrs. 3 PHYS1156 Physics 2 Lab 1 PHYS1157 ILS for PHYS1155 1 CS2500 Fundamentals CS 1 4 CS2501 Lab for CS2500 1 CS1800 Discrete Structures 4 CS1802 Recitation for CS1800 1	EECE2160 Embedded Design: Enabling Robotics 4 CS2510 Fundamentals CS 2 4 CS2511 Lab for CS2510 1 CS2800 Logic and Computation 4 CS2801 Lab for CS2800 1 Elective General Elective 4 EECE2000 Intro to Eng'g. Coop 1	Vacation	Co-op
<b>Year 2 BB</b>	MATH2341 Diff. Eq./Lin. Alg. 4 PHYS1155 Physics 2 for Engrs. 3 PHYS1156 Physics 2 Lab 1 PHYS1157 ILS for PHYS1155 1 CS2500 Fundamentals CS 1 4 CS2501 Lab for CS 2500 1 CS1800 Discrete Structures 4 CS1802 Recitation for CS1800 1 EECE2000 Intro to Eng'g. Coop 1	Co-op	Co-op	Vacation
<b>Year 3 AA</b>	Co-op	EECE2150 Circuits & Signals: Biomed App. 5 CS3000 CE Fundamentals 4 EECExxxx CE Fundamentals 4/5 CS3650 Computer Systems 4	*ENGW3302 Adv. Writing for Prof. 4 CS3500 Object Oriented Des. 4	Co-op
<b>Year 3 BB</b>	EECE2150 Circuits & Signals: Biomed App. 5 EECE2160 Embedded Design: Enabling Robotics 4 CS2510 Fundamentals CS 2 4 CS2511 Lab for CS2510 1 CS2800 Logic and Computation 4 CS2801 Lab for CS2800 1	Co-op	Co-op	*ENGW3302 Adv. Writing for Prof. 4 MATH3081 Probability 4
<b>Year 4 AA</b>	Co-op	EECE3000 Prof. Issues in Eng'g 1 EECExxxx CE Fundamentals 4/5 EECExxxx EE Fundamentals 4/5 MATH3081 Probability 4 Elective CCIS Tech Elective 1 4	EECE4790 Capstone Design 1 4 Elective EECE Tech Elective 1 4	Co-op
<b>Year 4 BB</b>	EECE3000 Prof. Issues in Eng'g 1 EECExxxx CE Fundamentals 4/5 EECExxxx CE Fundamentals 4/5 CS3500 Object-Oriented Design 4 CS3000 CE Fundamentals 4	Co-op	Co-op	EECE4790 Capstone Design 1 4 Elective EECE Tech Elective 1 4
<b>Year 5 AA</b>	Co-op	EECE4792 Capstone Design 2 4 Elective EECE Tech Elective 2 4 Elective CCIS Tech Elective 2 4 CS4500 Software Development 4 CS4501 Recitation for CS4500 0		
<b>Year 5 BB</b>	EECE4792 Capstone Design 2 4 CS3650 Computer Systems 4 EECExxxx EE Fundamentals 4/5 Elective CCIS Tech Elective 1 4	Elective General Elective 4 Elective EECE Tech Elective 2 4 Elective CCIS Tech Elective 2 4 CS4500 Software Development 4 CS4501 Recitation for CS4500 0		

Revised March/2018

The Capstone Design Courses are taken as follows: (EECE4790 - Summer 1 and EECE4792 - Spring) OR (EECE4790 - Summer 2 and EECE4792 - Fall)  
 \* ENGW3315 is an acceptable substitution for engineering majors.

NUpath requirements, Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements, and if these are not fulfilled in engineering courses, should use General Electives to do so. General Electives are academic, non-remedial, non-repetitive courses.

**2 Required General Electives**

**3 Required CE Fundamentals:** EECE2322/2323: Fundamentals Digital Design & Lab AND EECE2540 - Fundamentals Networks and \* CS3000 -Algorithms Data (formerly, CS4800)

\*Effective Fall 2018 CS3000 Algorithms replaces CS4800

**1 Required EE Fundamentals:** EECE2412/2413 - Fundamentals Electronics 1 & lab OR EECE2520 - Fundamentals Linear Systems OR EECE 2530/2531 - Fundamentals Electromagnetics & lab (EE Fundamental Courses not taken to meet the above requirements, may be taken as a technical elective.)

**Technical Elective Requirements: 2 EECE technical electives and 2 CCIS technical electives**

**2 EECE course from the following approved list:**

(EECE2412-2530), (EECE2750), (EECE3154), (EECE3324-EECE3468), (EECE4512-EECE4698), (EECE4991-EECE4993), (EECE5155-EECE5698), ENGR5670, GE4608

**2 CS courses from the following approved list:**

Approved List: CS2550, CS3200, CS3540, CS3700, CS3740, CS3800, (CS4100-CS4410), (CS4510-4650), (CS4740-CS4760), CS4850, (IS4200-IS4700)

**Note: AP credit for MATH2280 will substitute for MATH3081 requirement.**

**Please check with your advisor when taking a general elective in overlapping disciplines:**

Last Name A-L: Ellen Zierk- e.zierk@northeastern.edu

Last Name M-Z: Nicole Diamond - n.diamond@northeastern.edu

The registrar's website provides a listing of degree requirements and the DARS system provides a degree audit utility for students.

**CE/CS Program Changes Effective Spring 2018**

**Prior to Spring 2018:** Students who have completed both EECE2560 and CS4800 will count EECE2560 as one of their EECE technical electives.

Students who have completed CS3700 can count this as an CCIS Technical elective. CS3700 will remain on the approved CCIS technical elective list.