

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

Sample Only – Actual Curriculum Sequence May Deviate from Sample

	FALL	SPRING	SUMMER 1	SUMMER 2
Year 1	MATH1341 Calculus 1 for Engrs. 4 CHEM1151 General Chem. for Engrs. 4 CHEM1153 Recitation for CHEM1151 0 PHYS1161 Physics 1 4 PHYS1162 Physics 1 Lab 1 GE1000 Intro to Eng'g 1 GE1501 Cornerstone of Engineering 1 4	MATH1342 Calculus 2 for Engrs. 4 PHYS1165 Physics 2 4 PHYS1166 Physics 2 Lab 1 GE1502 Cornerstone of Engineering 2 4 ENGW1111 College Writing 4	Vacation	Vacation
Year 2 AA	MATH2321 Calculus 3 for Engrs. 4 MATH2341 Diff. Eq./Lin. Alg. 4 PHYS2303 Modern Physics 4 EECE2160 Embedded Systems: Enabling Robotics 4	PHYS2305 Thermo & Stat. Mech. 4 EECE2000 Intro to Eng'g. Coop 1 EECE2150 Circuits/Signals: Biomed Apps 5 EECExxxx CE Fundamentals 4/5 CS1800 Discrete Structures 4 CS1802 Recitation for CS1800 1	Vacation	Co-op
Year 3 AA	Co-op	PHYS3602 Elect. & Magnetism 4 EECExxxx CE Fundamentals 4/5 EECExxxx EE Fundamentals 4/5 * ENGW3302 Adv. Writing for Prof. 4	Elective General Elective 4 PHYS3600 Adv. Physics Lab 4	Co-op
Year 4 AA	Co-op	PHYS5115 Quantum Mechanics 4 EECE3000 Prof. Issues in Eng'g. 1 EECExxxx CE Fundamentals 4/5 Elective General Elective 4 MATH3081 Probability 4	EECE4790 Capstone 1 4 Elective EECE Tech Elective 1 4	Co-op
Year 5 AA	Co-op	EECE4792 Capstone Design 2 4 Elective Adv. Physics Elective 4 Elective EECE Tech Elective 2 4		

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 EECE2560 - Fundamentals Algorithms

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

Technical Elective Requirements: 2 EECE technical electives:

(EECE2412-2530), EECE2750, EECE3154 ,(EECE3324-EECE4698),(EECE4991- EECE4993), (EECE5515-EECE5698), GE4608, ENGR5670

1 CS courses from the following approved list may be taken toward the EECE technical elective requirement:

Approved List: CS2550, (CS3200-CS3500), (CS3540-CS3800), (CS4100-CS4770), 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.