

**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING**  
**MASTER OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING**  
**BS/MS 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 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 #1 4	Vacation	Vacation
Year 2 AA Plan 1	MATH2341 Diff. Eq./Lin. Alg. 4 PHYS1155 Physics 2 for Engrs. 3 PHYS1156 Physics 2 Lab 1 PHYS1157 ILS for PHYS1155 1 EECE2150 Circuits/Signals:Biomed Apps. 5 EECE2160 Embedded Design Enabling Robotic 4	CS1800 Discrete Structures 4 CS1802 Recitation for CS1800 1 EECExxxx CE Fundamentals 4/5 EECExxxx CE Fundamentals 4/5 EECExxxx EE Fundamentals 4/5 EECE2000 Intro to Eng'g. Coop 1	MATH3081 Probability & Stats. 4 Elective General Elective 2 4	Co-op
Year 2 BB Plan 2	MATH2341 Diff. Eq./Lin. Alg. 4 PHYS1155 Physics 2 for Engrs. 3 PHYS1156 Physics 2 Lab 1 PHYS1157 ILS for PHYS1155 1 EECE2150 Circuits/Signals:Biomed Apps. 5 EECE2160 Embedded Design Enabling Robotic 4 EECE2000 Intro to Eng'g. Coop 1	Co-op	Co-op	Elective General Elective 2 4 Elective General Elective 3 4
Year 3 AA Plan 1	Coop	EECE3000 Prof. Issues in Eng'g. 1 EECExxxx CE Fundamentals 4 Elective EECE Tech Elective 1 4 EECExxxx Graduate Course 4 EECExxxx Graduate Course 4	Elective General Elective 3 4 Elective General Elective 4 4	Vacation
Year 3 BB Plan 2	CS1800 Discrete Structures 4 CS1802 Recitation for CS1800 1 EECExxxx CE Fundamentals 4/5 EECExxxx CE Fundamentals 4/5 EECExxxx EE Fundamentals 4/5	Co-op	Co-op	MATH3081 Probability & Stats. 4 Elective General Elective 4 4
Year 4 AA (to BB) Plan 1	Elective EECE Tech Elective 2 4 EECExxxx Graduate Course 4 EECExxxx Graduate Course 4 *ENGW3302 Adv. Writing for Prof. 4	Co-op	Co-op	EECE4790 Capstone Design 1 4 Elective EECE Tech Elective 3 4
Year 4 BB (to ZH) Plan 2	EECE3000 Prof. Issues in Eng'g. 1 EECExxxx CE Fundamentals 4 Elective EECE Tech Elective 1 4 EECExxxx Graduate Course 4 EECExxxx Graduate Course 4	Elective EECE Tech Elective 2 4 EECExxxx Graduate Course 4 EECExxxx Graduate Course 4 *ENGW3302 Adv. Writing for Prof. 4	EECE4790 Capstone Design 1 4 Elective EECE Tech Elective 3 4	Vacation
Year 5 AA (to BB) Plan 1	EECE4792 Capstone Design 2 4 EECExxxx Graduate Course 4 EECExxxx Graduate Course 4 Elective General Elective #5 4	EECExxxx Graduate Course 4 EECExxxx Graduate Course 4 Elective EECE Tech Elective 4 4		
Year 5 ZH Plan 2	Elective EECE Tech Elective 4 4 EECExxxx Graduate Course 4 EECExxxx Graduate Course 4 Elective General Elective 5 4	EECE4792 Capstone Design 2 4 EECExxxx Graduate Course 4 EECExxxx Graduate Course 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.

**7 Required General Electives (A maximum of 2 Graduate Courses can be used to fulfill this requirement)**

**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: 4 EECE technical electives:**

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

**2 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.

**Requirements:**

Students will be required to meet with an undergraduate advisor to petition to enter the program.

Students are encouraged to meet with their financial aid counselor to review any financial questions.

4 semesters of coursework at Northeastern University must be completed with a minimum GPA of 3.2 to join the BS/MS program.

BS/MSECE program is 9.5 semesters of coursework.

**Notes:**

Students who opt out of the MSECE part of the program will still need to complete the Spring semester of the fifth year to finish the capstone design project.