

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	MATH1342	Calculus 2 for Engrs.	4	Vacation	Vacation	
	CHEM1151	General Chem for Engrs.	4	PHYS1151	Physics 1 for Engrs.	3			
	CHEM1153	Recitation for CHEM1151	0	PHYS1152	Physics 1 Lab	1			
	GE1000	Intro to Eng'g.	1	PHYS1153	ILS for PHYS1151	1			
	GE1501	Cornerstone of Engineering 1	4	GE1502	Cornerstone of Engineering 2	4			
	ENGW1111	College Writing	4	Elective	General Elective #1	4			
Year 2 AA Plan 1	MATH2341	Diff. Eq./Lin. Alg.	4	CS1800	Discrete Structures	4	MATH3081	Probability & Stats.	4
	PHYS1155	Physics 2 for Engrs.	3	CS1802	Recitation for CS1800	1	Elective	General Elective 2	4
	PHYS1156	Physics 2 Lab	1	EECExxxx	CE Fundamentals	4/5	Co-op		
	PHYS1157	ILS for PHYS1155	1	EECExxxx	CE Fundamentals	4/5			
	EECE2150	Circuits/Signals:Biomed Apps.	5	EECExxxx	EE Fundamentals	4/5			
EECE2160	Embedded Design Enabling Robotic	4	EECE2000	Intro to Eng'g. Coop	1				
Year 2 BB Plan 2	MATH2341	Diff. Eq./Lin. Alg.	4	Co-op	Co-op	Co-op	Elective	General Elective 2	4
	PHYS1155	Physics 2 for Engrs.	3				Elective	General Elective 3	4
	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						
Year 3 AA Plan 1	Coop			EECE3000	Prof. Issues in Eng'g.	1	Elective	General Elective 3	4
				EECExxxx	CE Fundamentals	4	Elective	General Elective 4	4
				Elective	EECE Tech Elective 1	4	Vacation		
				EECExxxx	Graduate Course	4			
				EECExxxx	Graduate Course	4			
			EECExxxx	Graduate Course	4				
Year 3 BB Plan 2	CS1800	Discrete Structures	4	Co-op	Co-op	Co-op	MATH3081	Probability & Stats.	4
	CS1802	Recitation for CS1800	1				Elective	General Elective 4	4
	EECExxxx	CE Fundamentals	4/5						
	EECExxxx	CE Fundamentals	4/5						
	EECExxxx	EE Fundamentals	4/5						
Year 4 AA (to BB) Plan 1	Elective	EECE Tech Elective 2	4	Co-op	Co-op	Co-op	EECE4790	Capstone Design 1	4
	EECExxxx	Graduate Course	4				Elective	EECE Tech Elective 3	4
	EECExxxx	Graduate Course	4						
	*ENGW3302	Adv. Writing for Prof.	4						
Year 4 BB (to ZH) Plan 2	EECE3000	Prof. Issues in Eng'g.	1	Elective	EECE Tech Elective 2	4	EECE4790	Capstone Design 1	4
	EECExxxx	CE Fundamentals	4	EECExxxx	Graduate Course	4	Elective	EECE Tech Elective 3	4
	Elective	EECE Tech Elective 1	4	EECExxxx	Graduate Course	4	Vacation		
	EECExxxx	Graduate Course	4	*ENGW3302	Adv. Writing for Prof.	4			
	EECExxxx	Graduate Course	4						
Year 5 AA (to BB) Plan 1	EECE4792	Capstone Design 2	4	EECExxxx	Graduate Course	4			
	EECExxxx	Graduate Course	4	EECExxxx	Graduate Course	4			
	EECExxxx	Graduate Course	4	Elective	EECE Tech Elective 4	4			
	Elective	General Elective #5	4						
Year 5 ZH Plan 2	Elective	EECE Tech Elective 4	4	EECE4792	Capstone Design 2	4			
	EECExxxx	Graduate Course	4	EECExxxx	Graduate Course	4			
	EECExxxx	Graduate Course	4	EECExxxx	Graduate Course	4			
	Elective	General Elective 5	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.