### 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

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#### Fall

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2 AA Plan 1</th>
<th>Year 2 BB Plan 2</th>
<th>Year 3 AA Plan 1</th>
<th>Year 3 BB Plan 2</th>
<th>Year 4 AA (to BB) Plan 1</th>
<th>Year 4 BB (to 2H) Plan 2</th>
<th>Year 5 AA (to BB) Plan 1</th>
<th>Year 5 ZH 2 Plan 2</th>
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<tbody>
<tr>
<td>CHEM1151 General Chem for Engrs.</td>
<td>PHYS1155 Physics 2 for Engrs.</td>
<td>PHYS1155 Physics 2 for Engrs.</td>
<td>ECECExxxx EE Fundamentals</td>
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<td>GE1000 Intro to Eng'g.</td>
<td>PHYS1157 ILS for PHYS1155</td>
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<td>GE1500 Cornerstone of Engineering 1</td>
<td>ECECExxxx Circuits/Signals/Biomed Apps.</td>
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<td>ENGW1111 College Writing</td>
<td>ECECExxxx Embedded Design Enabling Robot</td>
<td>ECECExxxx Embedded Design Enabling Robot</td>
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<td>Elective</td>
<td>ECECExxxx Intro to Eng'g, Coop</td>
<td>ECECExxxx Intro to Eng'g, Coop</td>
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#### Spring

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<tr>
<th>SUMMER 1</th>
<th>SUMMER 2</th>
</tr>
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<tr>
<td>MATH3142 Calculus 2 for Engrs.</td>
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<td>PHYS1151 Physics 1 for Engrs.</td>
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<td>PHYS1152 Physics 1 Lab</td>
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<td>PHYS1153 ILS for PHYS1152</td>
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<td>GE1502 Cornerstone of Engineering 2</td>
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<td>Elective</td>
<td>General Elective #1</td>
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</table>

#### Summer 1

**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.

- BS/MSECE program is 9.5 semesters of coursework.

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

- AP credit for MATH2280 will substitute for MATH3081 requirement.

- **Technical Elective Requirements:** 4 ECE technical electives:
  - (ECE2412-2530), ECE2750, ECE3154 (ECE324-ECE4698), ECE4991-ECE4993, (ECE5515-ECE5698), GE4608, ENG5670

- 2 CS courses from the following approved list may be taken toward the ECE technical elective requirement:
  - CS2550, CS3200-CS3500, CS3540-CS3800, CS4100-CS4770, CS4850, IS4200-5S4700

- **Cornerstone of Engineering 1**
  - EE Fundamentals

- **Cornerstone of Engineering 2**
  - EE Fundamentals

- **Circuits/Signals:Biomed Apps.**
  - ILS for PHYS1155

- **Capstone Design 1** and **Capstone Design 2**
  - 4

- **College Writing**
  - 4

- **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.

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


- **1 Required EE Fundamentals:** ECE2412/2413: Fundamentals Electronics 1 & Lab OR ECE2520: Fundamentals Linear Systems OR ECE2530/2531: Fundamentals Electromagnetics & Lab.

- **Technical Elective Requirements:** 4 ECE technical electives:
  - (ECE2412-2530), ECE2750, ECE3154 (ECE324-ECE4698), ECE4991-ECE4993, (ECE5515-ECE5698), GE4608, ENG5670

- **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 M-Z: Emily Ferraro- e.ferraro@northeastern.edu

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

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

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


- ( EE Fundamentals not taken to meet the above requirement may also be taken as a technical elective. )

- 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: Emily Ferraro- e.ferraro@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.

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**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING**

**FALL**

**SPRING**

**SUMMER 1**

**SUMMER 2**

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**Technical Elective Requirements:** 4 ECE technical electives:

- (ECE2412-2530), ECE2750, ECE3154 (ECE324-ECE4698), ECE4991-ECE4993, (ECE5515-ECE5698), GE4608, ENG5670

**2 CS courses from the following approved list may be taken toward the ECE technical elective requirement:**

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

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

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The Capstone Design Courses are taken as follows: (ECE4790 - Summer 1 and ECE4792 - Spring) OR (ECE4790 - Summer 2 and ECE4792 - Fall)

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* ENGW3302 is an acceptable substitution for engineering majors.

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**MATH2280**