

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

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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.