## BACHELOR OF SCIENCE IN BIOENGINEERING
### CURRICULUM OUTLINE - CLASS OF 2021, 2022, 2023

*Sample Only – Actual Curriculum Sequence May Deviate from Sample*

### FALL
- **Year 1**
  - MATH1341 Calculus 1 for Engrs. 4
  - CHEM1151 General Chem. for Engrs. 4
  - GE 1501 Cornerstone of Eng’g. 1 1
  - GE 1000 Intro. to Eng’g. 1
  - ENGW1111 College Writing 4

- **Year 2 (AA)**
  - BIOE2365 BioE Meas. Exp. & Stats. 1
  - BIOE2366 Lab for BIOE2365 4
  - BIOE2367 Biol. for Engineers 4
  - BIOE2368 Lab for BIOE2367 4
  - BIOE2369 Math. Methods for Engrs 4
  - GE2361 Math. Methods for Engrs 4
  - PHYS1175 Physics 2 for BioE 4
  - PHYS1176 ILS for PHYS1175 4
  - PHYS1177 Lab for PHYS1177 4

- **Year 2 (BB)**
  - BIOE2300 Intro to Eng’g. Co-op 1
  - BIOE2350 Lab for BIOE2350 4
  - BIOE2355 Biol. for Engineers 4
  - BIOE2356 Lab for BIOE2356 4
  - BIOE2357 Math. Methods for Engrs 4
  - GE2361 Math. Methods for Engrs 4
  - PHYS1175 Physics 2 for BioE 4
  - PHYS1176 Physics 2 Lab 4
  - PHYS1177 ILS for PHYS1177 4

- **Year 3 (AA)**
  - BIOE2310 Bioelectricity 4
  - BIOE3380 Biol. Dynamics & Ctrl 4
  - BIOE3380 Biol. Elective 1 4
  - Elective 4

- **Year 3 (BB)**
  - BIOE3310 Transport & Fluids 4
  - BIOE3310 General Elective 4
  - Elective 4

- **Year 4 (AA)**
  - BIOE3000 Prof. Issues in Engg. 4
  - Elective 4
  - Elective 4
  - Elective 4

- **Year 4 (BB)**
  - BIOE4790 Capstone Design 1 4
  - Elective 4

- **Year 5 (AA)**
  - BIOE4792 Capstone Design 2 4
  - Elective 4

- **Year 5 (BB)**
  - BIOE4792 Capstone Design 2 4

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### SPRING
- **Year 1**
  - MATH1342 Calculus 2 for Engrs. 4
  - PHYS1171 Physics 1 for BioE 4
  - PHYS1172 Physics 1 Lab 4

- **Year 2 (AA)**
  - BIOE2000 Intro. To Eng’g. Co-op 1
  - BIOE2350 Biomechanics 4
  - CHEM2311 Org. Chem 1 4
  - CHEM2312 Lab for CHEM2311 4
  - CHEM2319 Recitation for CHEM2311 4

- **Year 2 (BB)**
  - GE2361 Math. Methods for Engrs 4
  - GE2361 Math. Methods for Engrs 4

- **Year 3 (AA)**
  - BIOE3310 Bioreactors 4
  - Elective 4
  - Elective 4

- **Year 3 (BB)**
  - BIOE3310 Prof. Issues in Engg. 4
  - Elective 4

- **Year 4 (AA)**
  - BIOE4790 Capstone Design 2 4
  - Elective 4

- **Year 4 (BB)**
  - BIOE4790 Capstone Design 2 4
  - Elective 4

- **Year 5 (AA)**
  - BIOE4792 Capstone Design 2 4

- **Year 5 (BB)**
  - BIOE4792 Capstone Design 2 4

### SUMMER 1
- Vacation

### SUMMER 2
- Vacation

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*ENGW3315 is an acceptable substitution. Students may take ENGW 3302 or ENGW 3315 to fulfill their Advanced Writing in the Technical Professions requirement.*

**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.

**BIOE Concentrations:** Bioimaging & Signal Processing, Cell & Tissue Engineering, Biomechanics, or Biomedical Devices.

**BIOE Electives** are used to fulfill the concentration. Total of 5 courses (3 required, 2 elective from approved list)

Please consult with your advisor: Eve Young - 220 Snell, 617-373-2154, e.young@neu.edu

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

Revised 7/16/17