

**BIOENGINEERING DEPARTMENT**  
**BS-MS PROGRAM IN BIOENGINEERING - CLASS OF 2021, 2022, 2023**

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

	FALL	SPRING	SUMMER 1	SUMMER 2
Freshman Year 1	<a href="#">MATH1341</a> Calculus 1 for Engrs. 4 <a href="#">CHEM1151</a> General Chem. for Engrs. 4 <a href="#">CHEM1153</a> Recitation for CHEM1151 0 <a href="#">GE_1501</a> Cornerstone of Eng'g. 1 4 <a href="#">GE_1000</a> Intro. to Eng'g. 1 <a href="#">ENGW1111</a> College Writing 4	<a href="#">MATH1342</a> Calculus 2 for Engrs. 4 <a href="#">PHYS1171</a> Physics 1 for Engrs. 3 <a href="#">PHYS1172</a> Physics 1 Lab 1 <a href="#">PHYS1173</a> ILS for PHYS1151 1 <a href="#">GE_1502</a> Cornerstone of Eng'g. 2 4 Elective General Elective 4	Vacation	Vacation
Year 2 (AA)	<a href="#">BIOE2365</a> BioE Meas. Exp. & Stats. 4 <a href="#">BIOE2366</a> Lab for BIOE2365 1 <a href="#">BIOL1115</a> Biology for Engineers 4 <a href="#">BIOL1116</a> Lab for BIOL1115 1 <a href="#">GE2361</a> Math. Methods for Engrs 4 <a href="#">PHYS1175</a> Physics 2 for BioE 3 <a href="#">PHYS1176</a> ILS for PHYS1175 1 <a href="#">PHYS1177</a> Lab for PHYS1175 1	<a href="#">BIOE2000</a> Intro. To Eng'g. Co-op 1 <a href="#">BIOE2350</a> Biomechanics 4 <a href="#">BIOE2355</a> Quant. Physiology for BioE 4 <a href="#">CHEM2311</a> Org. Chem 1 4 <a href="#">CHEM2312</a> Lab for CHEM2311 1 <a href="#">CHEM2319</a> Recitation for CHEM2311 0 Elective General Elective 4	Vacation	Co-op
Year 2 (BB)	<a href="#">BIOE2000</a> Intro to Eng'g. Co-op 1 <a href="#">BIOE2365</a> BioE Meas. Exp. & Stats. 4 <a href="#">BIOE2366</a> Lab for BIOE2365 1 <a href="#">BIOL1115</a> Biology for Engineers 4 <a href="#">BIOL1116</a> Lab for BIOL1115 1 <a href="#">GE2361</a> Math. Methods for Engrs 4 <a href="#">PHYS1175</a> Physics 2 for BioE 3 <a href="#">PHYS1176</a> Physics 2 Lab 1 <a href="#">PHYS1177</a> ILS for PHYS1175 1	Co-op	Co-op	Vacation
Year 3 (AA)	Co-op	<a href="#">BIOE3210</a> Bioelectricity 4 <a href="#">BIOE3380</a> Biomol. Dynamics & Ctrl. 4 Elective BioE Elective 1 4 <a href="#">*ENGW3302</a> Adv. Writing for Prof. 4	<a href="#">BIOE3310</a> Transport & Fluids 4 Elective General Elective 4	Co-op
Year 3 (BB)	<a href="#">BIOE2350</a> Biomechanics 4 <a href="#">BIOE2355</a> Quant. Physiology for BioE 4 <a href="#">CHEM2311</a> Organic Chemistry 1 4 <a href="#">CHEM2312</a> Lab for CHEM2311 1 <a href="#">CHEM2319</a> Recitation for CHEM2311 0 Elective General Elective 4	Co-op	Co-op	<a href="#">BIOE3310</a> Transport & Fluids 4 Elective General Elective 4
Year 4 (YB)	Co-op	<a href="#">BIOE3000</a> Prof. Issues in Eng. 1 **Graduate Course 1 4 **Graduate Course 2 4 **Graduate Course 3 4 Elective General Elective 4	<a href="#">BIOE4790</a> Capstone Design 1 4 Elective General Elective 4	Vacation
Year 4 (ZC)	<a href="#">BIOE3000</a> Prof. Issues in Eng'g. 1 <a href="#">BIOE3210</a> Bioelectricity 4 <a href="#">BIOE3380</a> Biomol. Dynamics & Ctrl. 4 Elective BioE Elective 1 4 <a href="#">*ENGW3302</a> Adv. Writing for Prof. 4	**Graduate Course 1 4 **Graduate Course 2 4 **Graduate Course 3 4 Elective General Elective 4	Vacation	<a href="#">BIOE4790</a> Capstone Design 1 4 Elective General Elective 4
Year 5 (YB)	**Graduate Course 4 4 <a href="#">BIOE6100</a> Medical Physiology 4 Graduate Course 6 4 Elective General Elective 4	<a href="#">BIOE4792</a> Capstone Design 2 4 Graduate Course 7 4 Graduate Course 8 4 Elective General Elective 4		
Year 5 (ZC)	<a href="#">BIOE4792</a> Capstone Design 2 4 **Graduate Course 4 4 <a href="#">BIOE6100</a> Medical Physiology 4 Elective General Elective 4	Graduate Course 6 4 Graduate Course 7 4 Graduate Course 8 4 Elective General Elective 4		

Revised 12/14/18

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.

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

\*\* Graduate courses 1 through 4 fulfill the BS curriculum requirements as BioE Electives 2 through 5. No more than four BioE electives, 5000 level and above, can count towards both the BS and the MS.

**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)

BIOE Graduate Electives: 8 required - Full program must be approved by a graduate advisor.

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.