

**BACHELOR OF SCIENCE IN BIOENGINEERING  
CURRICULUM OUTLINE - 2025**

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

	FALL		SPRING		SUMMER 1	SUMMER 2
<b>Year 1</b>	<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 <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 BioE 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
<b>Year 2 (AA)</b>	<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="#">MATH2321</a> Calc 3 for Science & Eng 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="#">ENCP2000</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="#">MATH2341</a> Diff Eq & Lnr Alg for Eng 4 Elective General Elective 4		Vacation	Co-op
<b>Year 2 (BB)</b>	<a href="#">ENCP2000</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="#">MATH2321</a> Calc 3 for Science & Eng 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
<b>Year 3 (AA)</b>	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
<b>Year 3 (BB)</b>	<a href="#">BIOE2350</a> Biomechanics 4 <a href="#">BIOE2355</a> Quant. Physiology for BioE 4 <a href="#">MATH2341</a> Diff Eq & Lnr Alg for Eng 4 Elective General Elective 4		Co-op		Co-op	<a href="#">BIOE3310</a> Transport & Fluids 4 Elective General Elective 4
<b>Year 4 (AA)</b>	Co-op		<a href="#">ENCP3000</a> Prof. Issues in Eng. 1 Elective BioE Elective 2 4 Elective BioE Elective 3 4 Elective BioE Elective 4 4 Elective General Elective 4	<a href="#">BIOE4790</a> Capstone Design 1 4 Elective General Elective 4		Co-op
<b>Year 4 (BB)</b>	<a href="#">BIOE3210</a> Bioelectricity 4 <a href="#">BIOE3380</a> Bio. Dyn. & Ctrl. 4 Elective BioE Elective 1 4 <a href="#">ENCP3000</a> Prof. Issues in Eng. 1 <a href="#">*ENGW3302</a> Adv. Writing for Prof. 4		Co-op		Co-op	<a href="#">BIOE4790</a> Capstone Design 1 4 Elective General elective 4
<b>Year 5 (AA)</b>	Co-op		<a href="#">BIOE4792</a> Capstone Design 2 4 Elective BioE Elective 5 4 Elective General Elective 4 Elective General Elective 4			
<b>Year 5 (BB)</b>	<a href="#">BIOE4792</a> Capstone Design 2 4 Elective General Elective 4 Elective BioE Elective 2 4 Elective BioE Elective 3 4 Elective		Elective BioE Elective 4 4 Elective BioE Elective 5 4 Elective General Elective 4 Elective General Elective 4			

Revised 4/06/2020

\* ENGW3315 is an acceptable substitution for engineering majors.

NUpath Interpreting Culture (IC), Societies and Institutions (SI), Differences and Diversity (DD), Integration Experience (EX) are not explicitly satisfied by required 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:** Biomedical Devices & Bioimaging, Cell & Tissue Engineering, or Biomechanics.

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

[Please consult with your Academic Advisor, found here.](#)

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