

**COMBINED MAJOR IN BIOENGINEERING AND BIOCHEMISTRY  
BACHELOR OF SCIENCE IN BIOENGINEERING  
CURRICULUM OUTLINE - CLASS OF 2025**

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

	FALL	SPRING	SUMMER 1	SUMMER 2
Year 1	<a href="#">CHEM1151</a> General Chem. for Engrs. 4 <a href="#">CHEM1153</a> Recitation for CHEM1151 0 <a href="#">ENGW1111</a> College Writing 4 <a href="#">GE1000</a> Intro. to Eng'g. 1 <a href="#">GE1501</a> Cornerstone of Eng'g. 1 4 <a href="#">MATH1341</a> Calculus 1 for Engrs. 4	<a href="#">GE1502</a> Cornerstone of Eng'g. 2 4 <a href="#">MATH1342</a> Calculus 2 for Engrs. 4 <a href="#">PHYS1171</a> Physics 1 for BioE 3 _or_ <a href="#">PHYS1151</a> <a href="#">PHYS1172</a> Physics 1 Lab 1 _or_ <a href="#">PHYS1152</a> <a href="#">PHYS1173</a> ILS for PHYS1151 1 _or_ <a href="#">PHYS1153</a> 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 _or_ <a href="#">BIOL1111</a> <a href="#">BIOL1116</a> Lab for BIOL1115 1 _or_ <a href="#">BIOL1112</a> <a href="#">MATH 2321</a> Calculus 3 for Engrs. 4 <a href="#">PHYS1155</a> Physics 2 3 _or_ <a href="#">PHYS1175</a> <a href="#">PHYS1156</a> Physics 2 Lab 1 _or_ <a href="#">PHYS1176</a> <a href="#">PHYS1157</a> ILS for PHYS1155 1 _or_ <a href="#">PHYS1177</a>	<a href="#">BIOE2355</a> Quant. Physiology for BioE 4 <a href="#">BIOL2301</a> Genetics and Molecular Biology 4 <a href="#">BIOL2302</a> Lab for BIOL2301 1 <a href="#">CHEM2311</a> Org. Chem 1 4 <a href="#">CHEM2312</a> Lab for CHEM2311 1 <a href="#">ENCP2000</a> Intro. To Eng'g. Co-op 1 <a href="#">MATH2341</a> Diff Eq Lin Alg for Engrs 4	Vacation	Co-op
Year 2 BB	<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 _or_ <a href="#">BIOL1111</a> <a href="#">BIOL1116</a> Lab for BIOL1115 1 _or_ <a href="#">BIOL1112</a> <a href="#">ENCP2000</a> Intro. To Eng'g. Co-op 1 <a href="#">MATH 2321</a> Calculus 3 for Engrs. 4 <a href="#">PHYS1155</a> Physics 2 3 _or_ <a href="#">PHYS1175</a> <a href="#">PHYS1156</a> Physics 2 Lab 1 _or_ <a href="#">PHYS1176</a> <a href="#">PHYS1157</a> ILS for PHYS1155 1 _or_ <a href="#">PHYS1177</a>	Co-op	Co-op	Vacation
Year 3 AA	Co-op	<a href="#">BIOE2350</a> Biomechanics 4 <a href="#">BIOE3380</a> Biomol. Dynamics & Ctrl. 4 <a href="#">CHEM2313</a> Org. Chem 2 4 <a href="#">CHEM2314</a> Lab for CHEM2313 1 <a href="#">*ENGW3302</a> Adv. Writing for Prof. 4	<a href="#">BIOE3310</a> Transport & Fluids 4 <a href="#">BIOL3611</a> Biochemistry 4 <a href="#">BIOL3612</a> Lab for BIOL 3611 1	Co-op
Year 3 BB	<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="#">MATH2341</a> Diff Eq Lin Alg for Engrs 4	Co-op	Co-op	<a href="#">BIOE3310</a> Transport & Fluids 4 <a href="#">CHEM2313</a> Org. Chem 2 4 <a href="#">CHEM2314</a> Lab for CHEM2313 1
Year 4 AA	Co-op	<a href="#">BIOE3210</a> Bioelectricity 4 <a href="#">BIOE54XX</a> BioE 5410, 5420, or 5430 4 <a href="#">ENCP3000</a> Prof. Issues in Eng'g. 1 Elective Advanced BIOL/CHEM Elect. 4 Elective General Elective 4	<a href="#">BIOE4790</a> Capstone Design 1 4 Elective General Elective 4	Co-op
Year 4 BB	<a href="#">BIOE3210</a> Bioelectricity 4 <a href="#">BIOE3380</a> Bio. Dyn. & Ctrl. 4 <a href="#">BIOL2301</a> Genetics and Molecular Biol 4 <a href="#">BIOL2302</a> Lab for BIOL2301 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
Year 5 AA	Co-op	<a href="#">BIOE4792</a> Capstone Design 2 4 <a href="#">BIOE54XX</a> BioE 5410, 5420, or 5430 4 <a href="#">BIOE54XX</a> BioE 5410, 5420, or 5430 4 Elective Advanced BIOL/CHEM Elect. 4		
Year 5 BB	<a href="#">BIOE4792</a> Capstone Design 2 4 <a href="#">BIOE54XX</a> BioE 5410, 5420, or 5430 4 <a href="#">BIOL3611</a> Biochemistry 4 <a href="#">BIOL3612</a> Lab for BIOL 3611 1 <a href="#">ENCP3000</a> Prof. Issues in Eng'g. 1 Elective General Elective 4	<a href="#">BIOE54XX</a> BioE 5410, 5420, or 5430 4 <a href="#">BIOE54XX</a> BioE 5410, 5420, or 5430 4 Elective Advanced BIOL Elective 4 Elective Advanced CHEM Elective 4		

Revised 5/7/20

\*ENGW3307 or ENGW3315 are acceptable substitutions.

**NUPath Requirements:** Interpreting Culture (IC), Societies and Institutions (SI), Differences and Diversity (DD) and Integration Experience (EX) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements and should use General Electives to do so.

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

Degree requirements can be found in the academic catalog and DARS provides a degree audit for students.