COMBINED MAJOR IN BIOENGINEERING AND BIOCHEMISTRY
BACHELOR OF SCIENCE IN BIOENGINEERING
CURRICULUM OUTLINE - CLASS OF 2024

Sample Only – Actual Curriculum Sequence May Deviate from Sample

	FALL			SPRING			SUMMER 1			SUMMER 2		
Year 1	CHEM1151	General Chem. for Engrs.	4	GE1502	Cornerstone of Eng'g. 2	4	PHYS1155	Physics 2	3	Vacation		
	CHEM1153	Recitation for CHEM1151	0	MATH2321	Calculus 3 for Engrs.	4	or PHYS1175					
	ENGW1111	First-Year Writing	4	PHYS1171	Physics 1 for BioE	3	PHYS1156	Physics 2 Lab	1			
	GE1000	Intro. to Eng'g.	1	or PHYS1151			or PHYS1176					
	GE1501	Cornerstone of Eng'g. 1	4	PHYS1172	Physics 1 Lab	1	PHYS1157	ILS for PHYS1155	1			
	MATH1342	Calculus 2 for Engrs.	4	or PHYS1152			or PHYS1177					
				PHYS1173	ILS for PHYS1171	1	Elective	General Elective	4			
				or PHYS1153								
				Elective	General Elective	4						
Year 2 MC	BIOE2355	Quantitative Physiology	4	BIOE2350	Biomechanics	4	CHEM2313	Org. Chem 2	4	Co-op		
	BIOE2365	BioE Meas. Exp. & Stats.	4	BIOE3380	Biomol. Dynamics & Ctrl.	4	CHEM2314	Lab for CHEM2313	1			
	BIOE2366	Lab for BIOE2365	1	BIOL2301	Genetics & Molecular Bio	4	Elective	General Elective	4			
	BIOL1115	Biology for Engineers	4	BIOL2302	Lab for BIOL2301	1						
	or BIOL1111			CHEM2311	Organic Chemisty 1	4						
	BIOL1116	Lab for BIOL1115	1	CHEM2312	Lab for CHEM2311	1						
	or BIOL1112			ENCP2000	Intro to Eng'g, Co-op	1						
	MATH2341	Diff eq and Linear Algebra	4									
Year 2 MD	BIOE2365	BioE Meas. Exp. & Stats.	4	Co-op			Co-op			CHEM2313	Org. Chem 2	4
	BIOE2366	Lab for BIOE2365	1							CHEM2314	Lab for CHEM2313	1
	BIOL1115	Biology for Engineers	4							Elective	General Elective	4
	or BIOL1111											
	BIOL1116	Lab for BIOL1115	1									
	or BIOL1112											
	CHEM2311	Organic Chemisty 1	4									
	CHEM2312	Lab for CHEM2311	1									
	ENCP2000	Intro to Eng'g, Co-op	1									
	MATH2341	Diff eq and Linear Algebra	4									
Year 3 MC	Co-op			BIOE3210	Bioelectricity	4	BIOE3310	Transport & Fluids	4	Co-op		
				BIOE54XX	BioE 5410, 5420, or 5430	4	BIOE4790	Capstone Design 1	4			
				BIOE54XX	BioE 5410, 5420, or 5430	4						
				BIOL3611	Biochemistry	4						
				BIOL3612	Lab for BIOL 3611	1						
				ENCP3000	Prof. Issues in Eng'g.	1						
Year 3 MD	BIOE2350	Biomechanics	4	*ENGW3302	Adv Writing in the Tech Prof	4	Co-op			BIOE3310	Transport & Fluids	4
	BIOE2355	Quantitative Physiology	4	*(to be taken online)*						BIOE4790	Capstone Design 1	4
	BIOE3380	Biomol. Dynamics & Ctrl.	4									
	BIOL2301	Genetics and Molecular Biology	4									
	BIOL2302	Lab for BIOL2301	1	Co-op								
	ENCP3000	Prof. Issues in Eng'g.	1									
Year 4 MC	*ENGW3302	Adv Writing in the Tech Prof	4	BIOE4792	Capstone Design 2	4						
	(to be taken online)			BIOE54XX	BioE 5410, 5420, or 5430	4						
	Co-op			Elective	Advanced BIOL Elective	4						
				Elective	Advanced CHEM Elective	4						
Year 4 MD	BIOE3210	Bioelectricity	4	BIOE54XX	BioE 5410, 5420, or 5430	4						
	BIOE4792	Capstone Design 2	4	BIOE54XX	BioE 5410, 5420, or 5430	4						
	BIOE54XX	BioE 5410, 5420, or 5430	4	Elective	Advanced BIOL Elective	4						
	BIOL3611	Biochemistry	4	Elective	Advanced CHEM Elective	4						
	BIOL3612	Lab for BIOL 3611	1									

Revised 5/7/20

Students will need to have Advanced Standing Credit (such as AP, IB or college credit) for Math 1341 Calculus 1 - see advisor

*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 statisfying 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.