

**COMBINED MAJOR IN CHEMICAL ENGINEERING AND PHYSICS**  
**BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING**  
**CURRICULUM OUTLINE - Class of 2024**

*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="#">CHME2308</a>	ChE Conservation Princ.	4	<a href="#">MATH2321</a>	Calculus 3 for Engrs.	4	Vacation
	<a href="#">CHEM1153</a>	Recitation for CHEM 1151	0	<a href="#">GE1502</a>	Cornerstone Eng'g 2	4	<a href="#">PHYS1155</a>	Physics 2 for Engrs.	3	
	<a href="#">ENGW1111</a>	First-Year Writing	4	<a href="#">MATH1342</a>	Calculus 2 for Engrs.	4	<a href="#">PHYS1156</a>	Physics 2 Lab	1	
	<a href="#">GE1000</a>	Intro. to Eng'g.	1	<a href="#">PHYS1151</a>	Physics 1 for Engrs.	3	<a href="#">PHYS1157</a>	ILS for PHYS1155	1	
	<a href="#">GE1501</a>	Cornerstone Eng'g 1	4	<a href="#">PHYS1152</a>	Physics 1 Lab	1				
	<a href="#">MATH1341</a>	Calculus 1 for Engrs.	4	<a href="#">PHYS1153</a>	ILS for PHYS1151	1				
Year 2 AA	<a href="#">CHEM2311</a>	Organic Chemistry 1	4	<a href="#">CHEM2313</a>	Organic Chemistry 2	4	Elective General Elective (to be taken online)	4	Vacation	
	<a href="#">CHEM2312</a>	Lab for CHEM2311	1	<a href="#">CHEM2314</a>	Lab for CHEM2313	1				
	<a href="#">CHEM2320</a>	ChE Thermodynamics 1	4	<a href="#">CHEM2310</a>	Transport Processes 1	4				
	<a href="#">MATH2341</a>	Diff. Eq./Lin. Alg.	4	<a href="#">CHME3322</a>	ChE Thermodynamics 2	4				
	<a href="#">PHYS2371</a>	Electronics	3	<a href="#">PHYS2303</a>	Modern Physics	4				
Year 3 AA	<a href="#">PHYS2372</a>	Electronics Lab	1				Elective General Elective	4	Co-op	
	<a href="#">CHME3312</a>	Transport Processes 2	4	<a href="#">CHME4315</a>	ChE Eng'g. Exp. Design 2	4				
	<a href="#">CHME3315</a>	ChE Eng'g. Exp. Design 1	4	<a href="#">CHME4316</a>	Recitation for CHME4315	0				
	<a href="#">CHME3316</a>	Recitation for CHME3315	0	<a href="#">CHME4510</a>	ChE Kinetics	4				
	<a href="#">*ENGW3302</a>	Adv. Writing for Prof.	4	<a href="#">CHME4701</a>	Cpstn 1: Sep. & Proc. Anlys.	4				
	Elective	Adv. Eng. Elective	4	<a href="#">ENCP2000</a>	Intro to Eng'g. Co-op	1				
Year 4 AA				<a href="#">**PHYS3601</a>	Classical Dynamics	4				
				<a href="#">CHME4703</a>	Cpstn 2: Chem. Proc. Design	4				
				<a href="#">CHME4705</a>	Recitation for CHME4703	0				
		Co-op		<a href="#">ENCP3000</a>	Prof. Issues in Eng'g.	1				
				<a href="#">PHYS3602</a>	Electricity & Magnetism	4				
				<a href="#">PHYS4115</a>	Quantum Mechanics	4				
			<a href="#">PHYS5318</a>	Principles of Exp. Physics	4					

Revised 5/8/20

\* ENGW3315 is an acceptable substitution.

\*\* PHYS 3601 Classical Dynamics is offered fall and spring semesters of even years only. Please meet with academic advisor to discuss scheduling options for Year 4 of odd years.

**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.

**Advanced Engineering Elective Requirements:** Must be 4000-5999 level engineering course; may be within BIOE, CHME, CIVE, EECE, ME, IE, MEIE, ENGR. Students must meet all course restrictions and prerequisite requirements to enroll in these courses. A faculty approved undergraduate research project can be substituted for this requirement. Research must be 4 semester hours and the Chemical Engineering Undergraduate Education Committee must approve project prior to registration. Proper registration form will be required; please see advisor for more details.

[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.