

Bachelor of Science in Chemical Engineering - 4 Year 2 Co-op Program
CURRICULUM OUTLINE - Class of 2023

Sample Only – Actual Curriculum Sequence May Deviate from Sample

	FALL	SPRING	SUMMER 1	SUMMER 2
Year 1	MATH1342 Calculus 2 for Engrs. 4 CHEM1151 General Chem for Engrs. 4 CHEM1153 Recitation for CHEM1151 0 GE1000 Intro. to Eng'g. 1 GE1501 Cornerstone Eng'g 1 4 ENGW1111 College Writing 4	MATH2321 Calculus 3 for Engrs. 4 PHYS1151 Physics 1 for Engrs. 3 PHYS1152 Physics 1 Lab 1 PHYS1153 ILS for PHYS1151 1 GE1502 Cornerstone Eng'g 2 4 Elective General Elective 1 4	CHME2308 ChE Conservation Princ. 4 Elective General Elective 2 4	Vacation
Year 2 MC	MATH2341 Diff. Eq./Lin. Alg. 4 CHEM2311 Organic Chemistry 1 4 CHEM2312 Lab for CHEM2311 1 CHEM2319 Recitation for CHEM2311 0 CHME2310 Transport Processes 1 4 CHME2320 ChE Thermodynamics 1 4	CHEM2313 Organic Chem. 2 4 CHEM2314 Lab for CHEM2313 1 CHEM2320 Recitation CHEM2313 0 CHME2000 Intro. to Eng'g. Co-op 1 CHME3312 Transport Processes 2 4 CHME3322 ChE Thermodynamics 2 4 [BIOL 1115 or PHYS 1155] [General Biology 1 for Engrs. OR Physics for Engrs. 2, 4/5 PHYS 1156 Lab for PHYS1155, and PHYS 1157 Interactive Learn Sem. for PHYS1155]	Elective General Elective 3 4 Elective Adv. Science Elective 4	Co-op
Year 2 MD	MATH2341 Diff. Eq./Lin. Alg. 4 CHEM2311 Organic Chemistry 1 4 CHEM2312 Lab for CHEM2311 1 CHEM2319 Recitation for CHEM2311 0 CHME2000 Intro. to Eng'g. Co-op 1 CHME2310 Transport Processes 1 4 [BIOL 1115 or PHYS 1155] [General Biology 1 for Engrs. OR Physics for Engrs. 2, 4/5 PHYS 1156 Lab for PHYS1155, and PHYS 1157 Interactive Learn Sem. for PHYS1155]	ENGW3302 Adv Writing in the Tech Prof (to be taken online) 4 Co-op	Co-op	CHEM2313 Organic Chem. 2 4 CHEM2314 Lab for CHEM2313 1 CHEM2320 Recitation CHEM2313 0 CHME2320 ChE Thermo. 1 4
Year 3 MC	ENGW3302 Adv Writing in the Tech Prof (to be taken online) 4 Co-op	CHME3315 ChE Eng'g Exp. Design 1 4 CHME4510 ChE Kinetics 4 CHME4701 Cpstn 1: Sep. & Proc. Anlys. 4 Elective General Elective 4 4	Elective General Elective 5 4 Elective General Elective 6 4	Co-op
Year 3 MD	CHME3312 Transport Processes 2 4 CHME3315 ChE Eng'g Exp. Design 1 4 CHME3322 ChE Thermodynamics 2 4 Elective General Elective 3 4	Co-op	Co-op	Elective General Elective 4 4 Elective General Elective 5 4
Year 4 MC	Co-op	CHME3000 Prof. Issues in Eng'g. 1 CHME4315 ChE Eng'g Exp. Design 2 4 CHME4512 ChE Process Control 4 CHME4703 Cpstn 2: Chem. Proc. Design 4 Elective Advanced Eng. Elective 4		
Year 4 MD	CHME3000 Prof. Issues in Eng'g. 1 CHME4315 ChE Eng'g Exp. Design 2 4 CHME4510 ChE Kinetics 4 CHME4701 Cpstn 1: Sep. & Proc. Anlys. 4 Elective Advanced Science Elective 4	CHME4512 ChE Process Control 4 CHME4703 Cpstn 2: Chem. Proc. Design 4 Elective Adv. Eng'g. Elective 4 Elective General Elective 6 4		

Revised 4/11/19

Students need AP credit for Calc. AB (MATH1341 - Calculus 1 - 4 SH) in order to complete the 4 year plan - see advisor

* [ENGW3315](#) is an acceptable substitution for engineering majors.

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 Science Elective Requirements: Students can choose between BIOL2301, BIOL2321/22, BIOL2327, BIOL3603, BIOL 3611/12, CHEM2331/2332, CHEM3403/04, CHEM 3501, CHEM4621/4622, CHEM4628/29, EEMB2302/2303, PHYS2303, PHYS3601. Students must meet all prerequisite requirements to enroll in these courses and enroll in co-requisite labs if applicable.

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:

Last Names A-K Meghan Severance m.severance@northeastern.edu

Last Names L-Z Caitlin Goldblum, c.goldblum@northeastern.edu

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