

**Bachelor of Science Chemical Engineering/MS Engineering Management
CURRICULUM OUTLINE - Class of 2021**

Sample Only – Actual Curriculum Sequence May Deviate from Sample

	FALL	SPRING	SUMMER 1	SUMMER 2
Year 1	MATH1341 Calculus 1 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	MATH1342 Calculus 2 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 UG General Elective 1 4	Vacation	Vacation
Year 2 AA	MATH2321 Calculus 3 for Engrs. 4 CHEM2311 Organic Chemistry 1 4 CHEM2312 Lab for CHEM2311 1 CHEM2319 Recitation for CHEM2311 0 PHYS1155 Physics 2 for Engrs. 3 PHYS1156 Physics 2 Lab 1 PHYS1157 ILS for PHYS1155 1 CHME2308 ChE Conservation Princ. 4	MATH2341 Diff. Eq./Lin. Alg. 4 CHEM2313 Organic Chem. 2 4 CHEM2314 Lab for CHEM2313 1 CHEM2320 Recitation for CHEM2313 0 CHME2000 Intro. to Eng'g. Co-op 1 CHME2310 Transport Processes 1 4 CHME2311 Lab for CHME2310 2 CHME2320 ChE Thermodynamics 1 4	Vacation	Co-op
Year 2 BA	MATH2321 Calculus 3 for Engrs. 4 CHEM2311 Organic Chemistry 1 4 CHEM2312 Lab for CHEM2311 1 CHEM2319 Recitation for CHEM2311 0 PHYS1155 Physics 2 for Engrs. 3 PHYS1156 Physics 2 Lab 1 PHYS1157 ILS PHYS1155 1 CHME2000 Intro to Eng'g. Co-op 1 CHME2308 ChE Conservation Princ. 4	Co-op	Co-op	CHEM2313 Organic Chemistry 2 4 CHEM2314 Lab for CHEM2314 1 CHEM2320 Rec'tion for CHEM2313 0 CHME2320 ChE Thermo. 1 4
Year 3 AG	Co-op	BIOL1115 Biology 4 CHME3312 Transport Processes 2 4 CHME3313 Lab for CHME3312 2 CHME3322 ChE Thermodynamics 2 4	ENGW3302* Adv. Writing for Prof. 4 Elective UG General Elective 2 4	Co-op
Year 3 BG	MATH2341 Diff. Eq./Lin. Alg. 4 BIOL1115 Biology 4 CHME2310 Transport Processes 1 4 CHME2311 Lab for CHME2310 2 CHME3322 ChE Thermodynamics 2 4	Co-op	Co-op	ENGW3302* Adv. Writing for Prof. 4 Elective UG General Elective 2 4
Year 4 AG	Co-op	CHME3000 Advanced Science Elective 4/5 CHME4510 Prof. Issues in Eng'g. 1 CHME4701 ChE Kinetics 4 OR 6205 Separations & Proc. Anlys. 4 OR 6205 Determinstics Ops. Rsrch. 4	IE 6200 Eng'g. Prob. and Stat. 4 Grad. Elect MSEM - Grad. Elec. 1 4	Vacation
Year 4 BG	CHME3000 Advanced Science Elective 4/5 CHME3312 Prof. Issues in Eng'g. 1 CHME3313 Transport Processes 2 4 CHME3313 Lab for CHME3312 2 EMGT5220 Engineering Project Mgnt. 4	CHME4510 ChE Kinetics 4 IE 6200 Eng'g. Prob. and Stat. 4 Grad. Elect MSEM - Grad. Elec. 1 4 OR 6205 Determinstics Ops. Rsrch. 4	Vacation	Vacation
Year 5 AG	Elective UG General Elective 3 4 EMGT5220 Engineering Project Mgnt. 4 EMGT 6225 Econ. Decision Making 4 Grad. Elect MSEM - Grad. Elec. 2 4	CHME4512 ChE Process Control 4 CHME4703 Chemical Process Design 4 Grad. Elect MSEM - Grad. Elec. 3 4 Grad. Elect MSEM - Grad. Elec. 4 4		
Year 5 BG	Elective UG General Elective 3 4 CHME4701 Separations & Proc. Anlys. 4 EMGT 6225 Econ. Decision Making 4 Grad. Elect MSEM - Grad. Elec. 2 4	CHME4512 Process Control 4 CHME4703 Chemical Process Design 4 Grad. Elect MSEM - Grad. Elec. 3 4 Grad. Elect MSEM - Grad. Elec. 4 4		

Revised 05/24/16

Students will be required to meet with an undergraduate advisor to petition to enter the program.

Students are encouraged to meet with their financial aid counselor to review any financial questions.

4 semesters of coursework at Northeastern University must be completed with a minimum GPA of 3.2 to join the BS/MS program.

16SH (4 Courses) from Graduate Program are used towards requirements in Undergraduate Program as general or major requirements.

Graduate electives outside the department curriculum may be applied to the degree requirements by petitioning the department's graduate committee.

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

Electives may be interchanged. Please consult with your advisor in 220SN, 617-373-2154

NUpath Requirements: Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering 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.

Advanced Science Elective Requirements: Students can choose between BIOL2301/02, BIOL2323/24, BIOL2327, BIOL3603, CHEM2321/22, CHEM2341/42, CHEM3403/04, CHEM4621/4622, CHEM4628/29, 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 CHME, CIVE, EECE, ME, IE, MEIE, ENGR. 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.

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