

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

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

	FALL	SPRING	SUMMER 1	SUMMER 2
<b>Year 1</b>	<a href="#">MATH1341</a> Calculus 1 for Engrs. 4 <a href="#">CHEM1151</a> General Chem for Engrs. 4 <a href="#">CHEM1153</a> Recitation for CHEM1151 0 <a href="#">GE1000</a> Intro. to Eng'g. 1 <a href="#">GE1501</a> Cornerstone Eng'g 1 4 <a href="#">ENGW1111</a> College Writing 4	<a href="#">MATH1342</a> Calculus 2 for Engrs. 4 <a href="#">PHYS1151</a> Physics 1 for Engrs. 3 <a href="#">PHYS1152</a> Physics 1 Lab 1 <a href="#">PHYS1153</a> ILS for PHYS1151 1 <a href="#">GE1502</a> Cornerstone Eng'g 2 4 Elective UG General Elective 1 4	Vacation	Vacation
<b>Year 2 AA</b>	<a href="#">MATH2321</a> Calculus 3 for Engrs. 4 <a href="#">CHEM2311</a> Organic Chemistry 1 4 <a href="#">CHEM2312</a> Lab for CHEM2311 1 <a href="#">CHEM2319</a> Recitation for CHEM2311 0 <a href="#">PHYS1155</a> Physics 2 for Engrs. 3 <a href="#">PHYS1156</a> Physics 2 Lab 1 <a href="#">PHYS1157</a> ILS for PHYS1155 1 <a href="#">CHME2308</a> ChE Conservation Princ. 4	<a href="#">MATH2341</a> Diff. Eq./Lin. Alg. 4 <a href="#">CHEM2313</a> Organic Chem. 2 4 <a href="#">CHEM2314</a> Lab for CHEM2313 1 <a href="#">CHEM2320</a> Recitation for CHEM2313 0 <a href="#">CHME2000</a> Intro. to Eng'g. Co-op 1 <a href="#">CHME2310</a> Transport Processes 1 4 <a href="#">CHME2311</a> Lab for CHME2310 2 <a href="#">CHME2320</a> ChE Thermodynamics 1 4	Vacation	Co-op
<b>Year 2 BA</b>	<a href="#">MATH2321</a> Calculus 3 for Engrs. 4 <a href="#">CHEM2311</a> Organic Chemistry 1 4 <a href="#">CHEM2312</a> Lab for CHEM2311 1 <a href="#">CHEM2319</a> Recitation for CHEM2311 0 <a href="#">PHYS1155</a> Physics 2 for Engrs. 3 <a href="#">PHYS1156</a> Physics 2 Lab 1 <a href="#">PHYS1157</a> ILS PHYS1155 1 <a href="#">CHME2000</a> Intro to Eng'g. Co-op 1 <a href="#">CHME2308</a> ChE Conservation Princ. 4	Co-op	Co-op	<a href="#">CHEM2313</a> Organic Chemistry 2 4 <a href="#">CHEM2314</a> Lab for CHEM2314 1 <a href="#">CHEM2320</a> Rec'tion for CHEM2313 0 <a href="#">CHME2320</a> ChE Thermo. 1 4
<b>Year 3 AG</b>	Co-op	<a href="#">BIOL1115</a> Biology 4 <a href="#">CHME3312</a> Transport Processes 2 4 <a href="#">CHME3313</a> Lab for CHME3312 2 <a href="#">CHME3322</a> ChE Thermodynamics 2 4	<a href="#">ENGW3302*</a> Adv. Writing for Prof. 4 Elective UG General Elective 2 4	Co-op
<b>Year 3 BG</b>	<a href="#">MATH2341</a> Diff. Eq./Lin. Alg. 4 <a href="#">BIOL1115</a> Biology 4 <a href="#">CHME2310</a> Transport Processes 1 4 <a href="#">CHME2311</a> Lab for CHME2310 2 <a href="#">CHME3322</a> ChE Thermodynamics 2 4	Co-op	Co-op	<a href="#">ENGW3302*</a> Adv. Writing for Prof. 4 Elective UG General Elective 2 4
<b>Year 4 AG</b>	Co-op	Advanced Science Elective 4/5 <a href="#">CHME3000</a> Prof. Issues in Eng'g. 1 <a href="#">CHME4510</a> ChE Kinetics 4 <a href="#">CHME4701</a> Cpstn 1: Sep. & Proc. Anlys. 4 <a href="#">CHME7350</a> Transport Phenomena 4	<a href="#">CHME5xxx</a> Grad. Elective 1 4 Grad. Elect Grad. Elective 2 4	Vacation
<b>Year 4 BG</b>	Advanced Science Elective 4/5 <a href="#">CHME3000</a> Prof. Issues in Eng'g. 1 <a href="#">CHME3312</a> Transport Processes 2 4 <a href="#">CHME3313</a> Lab for CHME3312 2 <a href="#">CHME7320</a> ChE Math 4	<a href="#">CHME5xxx</a> Grad. Elective 1 4 Grad. Elect Grad. Elective 2 4 <a href="#">CHME7350</a> Transport Phenomena 4 <a href="#">CHME4510</a> ChE Kinetics 4		
<b>Year 5 AA</b>	Elective UG General Elective 3 4 <a href="#">CHME7320</a> ChE Math 4 <a href="#">CHME7330</a> ChE Thermodynamics 4 Grad. Elect Grad. Elective 3 4	<a href="#">CHME4512</a> ChE Process Control 4 <a href="#">CHME4703</a> Cpstn 2: Chem. Proc. Design 4 <a href="#">CHME7340</a> ChE Kinetics 4 <a href="#">CHMExxxx</a> Grad. Special Topics 4		
<b>Year 5 BG</b>	Elective UG General Elective 3 4 <a href="#">CHME4701</a> Cpstn 1: Sep. & Proc. Anlys. 4 <a href="#">CHME7330</a> ChE Thermodynamics 4 Grad. Elect Grad. Elective 3 4	<a href="#">CHME4512</a> Process Control 4 <a href="#">CHME4703</a> Cpstn 2: Chem. Proc. Design 4 <a href="#">CHME7340</a> ChE Kinetics 4 <a href="#">CHMExxxx</a> Grad. Special Topics 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.