

PlusOne Curriculum for CHEMICAL ENGINEERING/CHEMICAL ENGINEERING

Sample Only – Actual Curriculum Sequence May Deviate from Sample

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING CURRICULUM - CLASS OF 2022, 2023

| | | FALL | | SPRING | | SUMMER 1 | | SUMMER 2 | |
|-----------------------------|--------------------------------------|----------------------------------|-----------------------------|------------------------------|------------------------------------|----------|--------------------------|-------------------------|----------|
| Year 1 | MATH1342 | Calculus 2 for Engrs. | 4 | MATH2321 | Calculus 3 for Engrs. | 4 | CHME2308 | ChE Conservation Princ. | 4 |
| | CHEM1151 | General Chem for Engrs. | 4 | PHYS1151 | Physics 1 for Engrs. | 4 | Elective | General Elective 2 | 4 |
| | CHEM1153 | Recitation for CHEM1151 | 0 | PHYS1152 | Physics 1 Lab | 1 | | | |
| | GE1000 | Intro. to Eng'g. | 1 | PHYS1153 | ILS for PHYS1151 | 0 | | | |
| | GE1501 | Cornerstone Eng'g 1 | 4 | GE1502 | Cornerstone Eng'g 2 | 4 | | | |
| | ENGW1111 | College Writing | 4 | Elective | General Elective 1 | 4 | | | Vacation |
| Year 2 MC | MATH2341 | Diff. Eq./Lin. Alg. | 4 | CHEM2313 | Organic Chem. 2 | 4 | Elective | General Elective 3 | 4 |
| | CHEM2311 | Organic Chemistry 1 | 4 | CHEM2314 | Lab for CHEM2313 | 1 | Elective | Advanced Science Electi | 4 |
| | CHEM2312 | Lab for CHEM2311 | 1 | CHEM2320 | Recitation CHEM2313 | 0 | | | |
| | CHEM2319 | Recitation for CHEM2311 | 0 | CHME3312 | Transport Processes 2 | 4 | | | |
| | CHME2000 | Intro. to Eng'g. Co-op | 1 | CHME3322 | ChE Thermodynamics 2 | 4 | | | |
| | CHME2310 | Transport Processes 1 | 4 | BIOL 1115 or | [General Biology 1 for Engrs. (4/5 | 4/5 | | | |
| | CHME2320 | ChE Thermodynamics 1 | 4 | PHYS 1155 | Physics for Engrs. 2, | 4 | | | |
| | | | PHYS 1156 | Lab for PHYS1155, and | 4 | | | | |
| | | | PHYS 1157] | ILS for PHYS1155] | 4 | | | | |
| Year 2 MD | MATH2341 | Diff. Eq./Lin. Alg. | 4 | ENGW3302 | Adv Writing in the Tech Prof | 4 | | | |
| | CHEM2311 | Organic Chemistry 1 | 4 | | (to be taken online) | | | | |
| | 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 | [General Biology 1 for Engrs. OR | 4/5 | | | | | | |
| PHYS 1155 | Physics for Engrs. 2, | | | | | | | | |
| PHYS 1156 | Lab for PHYS1155, and | | | | | | | | |
| PHYS 1157] | Interactive Learn Sem. for PHYS1155] | | | | | | | | |
| Year 3 MC | ENGW3302 | Adv Writing in the Tech Prof | 4 | CHME3000 | Prof. Issues in Eng'g. | 1 | Elective | Graduate Course #2 | 4 |
| | | | | CHME3315 | Chem. Eng. Lab 1 | 4 | Elective | Graduate Course #3 | 4 |
| | | | | CHME4510 | ChE Kinetics | 4 | | | |
| | | | | CHME4701 | Cpstrn 1: Sep. & Proc. Anlys. | 4 | | | |
| | | | | Elective | Graduate Course #1 | 4 | | | |
| | | | | | | | | | Co-op |
| Year 3 MD | CHME3000 | Prof. Issues in Eng'g. | 1 | | | | | | |
| | CHME3312 | Transport Processes 2 | 4 | | | | | | |
| | CHME3315 | Chem. Eng. Lab 1 | 4 | | | | | | |
| | CHME3322 | ChE Thermodynamics 2 | 4 | | | | | | |
| | Elective | Graduate Course #1 | 4 | | | | | | |
| | | | | | | | | | Co-op |
| Year 4 MC | | | | CHME4315 | Chem. Eng. Lab 2 | 4 | | | |
| | | | | CHME4512 | ChE Process Control | 4 | | | |
| | | | | CHME4703 | Cpstrn 2: Chem. Proc. Design | 4 | | | |
| | | | | Elective | Graduate Course# 4 | 4 | | | |
| Year 4 MD | CHME4315 | Chem. Eng. Lab 2 | 4 | CHME4512 | ChE Process Control | 4 | | | |
| | CHME4510 | ChE Kinetics | 4 | CHME4703 | Cpstrn 2: Chem. Proc. Design | 4 | | | |
| | CHME4701 | Cpstrn 1: Sep. & Proc. Anlys. | 4 | Elective | Graduate Course #3 | 4 | | | |
| | Elective | Advanced Science Elective | 4 | Elective | Graduate Course #4 | 4 | | | |
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Revised 6/17/2019

You will need to have AP credit for Calc. AB (MATH1341 - Calculus 1 - 4 SH) - see advisor

Students are required to meet with their academic advisor to petition into the PlusOne program.

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

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), 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.

MASTER OF SCIENCE IN CHEMICAL ENGINEERING CURRICULUM

| | | FALL | | SPRING | |
|---------------------|--------------------|------|--------------------|--------|--|
| PlusOne Year | Graduate Course #5 | 4 | Graduate Course #7 | 4 | |
| | Graduate Course #6 | 4 | Graduate Course #8 | 4 | |

For more information about the PlusOne program or for assistance with applying to the program, please contact the Graduate Student Services Team at support@husky.desk-mail.com