

FIVE-YEAR PROGRAM IN CHEMICAL ENGINEERING

Catalog Year 08-09, University of Utah

FIRST YEAR

FALL SEMESTER

MATH 1210 or 1270 Calculus I¹ (4)
CHEM 1210 General Chemistry I (4)
CHEM 1215 General Chemistry Lab I (1)
WRTG 2010 Intermediate Writing (3)
CH EN 1703 Intro to Eng Computing (2)
TOTAL HOURS: 14

SPRING SEMESTER

MATH 1220 or 1280 Calculus II¹ (4)
CHEM 1220 General Chemistry II² (4)
CHEM 1225 General Chemistry Lab II (1)
PHYS 2210 Physics (4)
CH EN 4755 Undergraduate Seminar (0.5)
TOTAL HOURS: 13.5

SECOND YEAR

FALL SEMESTER

MATH 2250 ODEs and Linear Algebra (4)
ME EN 1300 Statics and Strength of Mats (4)
PHYS 2220 Physics (4)
PHYS 1809 General Physics Laboratory (1)
CH EN 2300 Thermodynamics I (2)

TOTAL HOURS: 15

SPRING SEMESTER

CH EN 2703 Numerical Methods (2)
CH EN 2800 Fund. of Process Engineering (3)
CHEM 2310 Organic Chemistry I³ (4)
CHEM 2315 Organic Chemistry lab I³ (1)
CH EN 4755 Undergraduate Seminar (0.5)
General Education (3)

TOTAL HOURS: 13.5

THIRD YEAR

FALL SEMESTER

CHEM 3060 Physical Chemistry I (4)
CH EN 3353 Fluid Mechanics (3)
General Education (3)
CH EN 3853 Chemical Eng Thermo (3)
TOTAL HOURS: 13

SPRING SEMESTER

MATH Technical Elective⁴ (Math) (2-4)
General Education/Bachelor Degree Requir. (6)
Technical Elective⁴ (4)

TOTAL HOURS: 14

FOURTH YEAR

FALL SEMESTER

CH EN 3453 Heat Transfer (3)
Technical Elective⁴ (6)
CH EN 4753 Undergraduate Seminar (0.5)
General Education (3)
TOTAL HOURS: 12.5

SPRING SEMESTER

CH EN 3553 Chemical Reaction Eng (3)
CH EN 3603 Mass Transfer & Separations (3)
CH EN 5103 Biochemical Engineering (3)
General Education (3)

TOTAL HOURS: 12

FIFTH YEAR

FALL SEMESTER

CH EN 4903 Projects Laboratory I (4)
CH EN 4203 Process Control (3)
CH EN 4253 Process Design I (3)
CH EN 4753 Undergraduate Seminar (0.5)
TOTAL HOURS: 10.5⁶

SPRING SEMESTER

CH EN 4905 Projects Laboratory II⁵ (3)
CH EN 5253 Process Design II (3)
Technical Elective⁴ (3)
General Education (3)

TOTAL HOURS: 12⁶

GRAND TOTAL HOURS: 130

1. Students with adequate math preparation should take the MATH 1270 and 1280, Accelerated Engineering Calculus series. Students who take 1210/1220 are encouraged to take MATH 2210 as a technical elective.

2. Students who qualify should take CHEM 1221, Honors General Chemistry II and CHEM 1241, Honors General Chemistry Lab II, instead of CHEM 1220, General Chemistry II, and CHEM 1225, General Chemistry Lab II.

3. Students who qualify should take CHEM 2311, Honors Organic Chemistry I, instead of CHEM 2310.

4. A total of 17 credit hours of technical elective courses are required.

5. CH EN 4905 fulfills the Upper-division Writing/Communication requirement.

6. Note that a student must take at least 12 credit hours to be considered a full-time student, a requirement for scholarship recipients. You may have to take an additional course to bring your total credit hours up to 12 for this semester.