

Bachelor of Science for curriculum year 2020/2021

Freshman Year

First Semester

- 4 – CH 1010 General Chemistry
- 4 – MATH 1060 Calculus I
- 4 – Technical Requirement (note 1)
- 3 – Gen Ed (note 2)

(15 hours total)

Second Semester

- 4 – CH 1020 General Chemistry
- 4 – MATH 1080 Calculus II
- 3 – PHYS 1220 Physics I
- 1 – PHYS 1240 Physics I lab
- 3 – ENGL 1030 Composition

(15 hours total)

Sophomore Year

First Semester

- 3 – CH 2230 Organic Chemistry
- 1 – CH 2270 Organic Chem Lab
- 4 – MATH 2060 Calculus III
- 3 – PHYS 2210 Physics II
- 1 – PHYS 2230 Physics II lab
- 3 – Gen Ed

(15 hours total)

Second Semester

- 3 – CH 1520 Chemistry Communication
- 3 – CH 2050 Intro. to Inorganic Chemistry
- 3 – CH 2240 Organic Chemistry
- 1 – CH 2280 Organic Chem Lab
- 3 – Advanced Math requirement (note 3)
- 3 – Gen Ed

(16 hours total)

Junior Year

First Semester

- 3 – CH 3130 Quantitative Analysis
- 2 – CH 3150 Quantitative Analysis Lab
- 3 – CH 3310 Physical Chemistry
- 1 – CH 3390 Physical Chemistry Lab
- 1 – CH 3410 Introduction to Research
- 3 – Inorganic Chemistry requirement (note 4)
- 3 – Elective

(16 hours total)

Second Semester

- 3 – CH 3320 Physical Chemistry
- 1 – CH 3400 Physical Chemistry Lab
- 3 – CH 3600 Chemical Biology
- 3 – CH 4110 Instrumental Analysis
- 2 – CH 4120 Instrumental Analysis Lab
- 3 – Elective

(15 hours total)

Senior Year

First Semester

- 3 – CH 4430 Research Problems
- 3 – Chemistry Requirement (note 5)
- 3 – Gen Ed
- 6 – Elective

(15 hours total)

Second Semester

- 2 – CH 4030 Advanced Synthesis Techniques
- 3 – CH 4440 Research Problems
- 3 – CH 4500 Chemistry Capstone
- 3 – Chemistry Requirement
- 3 – Elective

(14 hours total)

121 total credit hours

Bachelor of Arts for curriculum year 2020/2021

Freshman Year

First Semester

- 4 – CH 1010 General Chemistry
- 4 – MATH 1060 Calculus I
- 4 – Technical Requirement (note 1)
- 3 – Gen Ed (note 2)

(15 hours total)

Second Semester

- 4 – CH 1020 General Chemistry
- 4 – MATH 1080 Calculus II
- 3 – PHYS 1220 Physics I
- 1 – PHYS 1240 Physics I lab
- 3 – ENGL 1030 Composition

(15 hours total)

Sophomore Year

First Semester

- 3 – CH 2230 Organic Chemistry
- 1 – CH 2270 Organic Chem Lab
- 4 – MATH 2060 Calculus III
- 3 – PHYS 2210 Physics II
- 4 – Modern Language requirement (note 6)

(15 hours total)

Second Semester

- 3 – CH 1520 Chemistry Communication
- 3 – CH 2050 Intro. to Inorganic Chemistry
- 3 – CH 2240 Organic Chemistry
- 1 – CH 2280 Organic Chem Lab
- 3 – Gen Ed
- 4 – Modern Language requirement

(17 hours total)

Junior Year

First Semester

- 3 – CH 3130 Quantitative Analysis
- 1 – CH 3170 Quantitative Analysis Lab
- 3 – CH 3310 Physical Chemistry
- 1 – CH 3410 Introduction to Research
- 3 – Gen Ed
- 3 – Minor requirement (note 7)
- 3 – Modern Language requirement

(17 hours total)

Second Semester

- 3 – CH 3320 Physical Chemistry
- 3 – CH 3600 Chemical Biology
- 3 – Chemistry Writing requirement (note 8)
- 3 – Minor requirement
- 3 – Modern Language requirement

(15 hours total)

Senior Year

First Semester

- 3 – Chemistry Requirement (note 5)
- 3 – Minor requirement
- 3 – Gen Ed
- 6 – Elective

(15 hours total)

Second Semester

- 3 – CH 4500 Chemistry Capstone
- 3 – Chemistry Requirement
- 6 – Minor requirement
- 3 – Elective

(15 hours total)

124 total credit hours

Curriculum Notes

1. Select from one of these lecture lab combinations:
 - BIOL 1030 plus BIOL 1050
 - CPSC 1010 plus CPSC 1011 or CPSC 1060 plus CPSC 1061
 - GEOL 1010 plus GEOL 1030
2. See the General Education requirements for more detail. Required courses include two Arts & Humanities (one literature and one non-literature) and two Social Sciences (must be from different areas). Also required is a course in the area of Cross Cultural Awareness and a course in the area of Science & Technology in Society. Some Gen Ed courses satisfy two requirements.
3. Select from MATH 2080, MATH 3020, MATH 3110.
4. Select CH 4010 or CH 4020.
5. A course with significant chemistry content.
 - Any 3000- or 4000-level CH course.
 - BCHM 3050 – Essential Elements of Biochemistry
 - BCHM 4060 – Physiological Chemistry
 - BCHM 4230 – Principles of Biochemistry
 - EES 4110 – Ionizing Radiation Detection and Measurement
 - EES 4850 – Hazardous Waste Management
 - ETOX 4210 – Chemical Sources and Fate in Environmental Systems
 - ETOX 4300 – Toxicology
 - FDSC 4020 – Food Chemistry II
 - GEOL 3180 – Introduction to Geochemistry
 - MSE 4020 – Fundamentals of Solid State Materials
 - MSE 4150 – Polymer Science and Engineering
 - PHYS 4520 – Nuclear and Particle Physics
 - PHYS 4810 – Physics of Surfaces
6. Pick from one of the following American Sign Language, Arabic, Chinese, French, German, Italian, Japanese, Latin, Portuguese, Russian or Spanish.
7. The BA Chemistry major is accompanied by a required minor. A minor consists of at least 15 credit hours in an area other than chemistry. Of the 15 credit hours no fewer than nine credits must be at the 3000 level or higher. Courses may not be used to fulfill both the major and minor requirements. See the catalogue for the list of minors and minor requirements.
8. Pick from EDLT 4980, ENGL 3040, ENGL 3120, ENGL 3140, ENGL 3150, ENGL 3450, ENGL 3460, ENGL 3480, ML 4020, or THEA 3470. The course usually taken is ENGL 3140 – Technical Writing.