

CHEMISTRY

CHEMISTRY PROGRAM - GENERAL OPTION

The General option is specifically designed with a minimum of required courses so that students, in cooperation with their faculty academic advisors, can exercise a maximum degree of flexibility in tailoring programs to meet their individual aspirations. By judiciously choosing electives, individuals can enrich these minimum chemistry requirements to prepare for futures in law, technical marketing, environmental science, computer science, technical writing, toxicology, education, technical illustration, engineering, health sciences, and business.

Curriculum

The matrix below is a sample plan for all coursework required for this program.

Freshman

| Fall | Credits |
|---|-----------|
| ENGL 1013 Composition I ¹ | 3 |
| SS 1XXX Social Science Courses ¹ | 3 |
| MATH 2914 Calculus I | 4 |
| PHSC 1001 Orientation to Physical Science | 1 |
| CHEM 2124 General Chemistry I and CHEM 2120 General Chemistry I Lab | 4 |
| Total Hours | 15 |

| Spring | Credits |
|---|-----------|
| ENGL 1023 Composition II ¹ | 3 |
| BIOL 1114 Principles of Biology | 4 |
| MATH 2924 Calculus II | 4 |
| PHSC 1011 Orientation to Physical Science II | 1 |
| CHEM 2134 General Chemistry II and CHEM 2130 General Chemistry II Lab | 4 |
| Total Hours | 16 |

Sophomore

| Fall | Credits |
|--|---------|
| SS 1XXX Social Science Courses ¹ | 3 |
| PHYS 2014 Algebra-Based Physics I and PHYS 2000 Physics Laboratory I <i>or</i> PHYS 2114 Calculus-Based Physics I and PHYS 2000 Physics Laboratory I | 4 |
| COMS 2003 Microcomputer Applications or COMS 2803 Programming in C | 3 |
| CHEM 3254 Fundamentals of Organic Chemistry | 4 |
| Total Hours | |

| Spring | Credits |
|--|-----------|
| USHG 1XXX U.S. History and Government ¹ | 3 |
| PHYS 2024 Algebra-Based Physics II and PHYS 2010 Physics Laboratory II <i>or</i> PHYS 2124 Calculus-Based Physics II and PHYS 2010 Physics Laboratory II | 4 |
| CHEM 3245 Quantitative Analysis | 5 |
| CHEM 3264 Mechanistic Organic Chemistry | 4 |
| Total Hours | 16 |

Junior

| Fall | Credits |
|--|-----------|
| FAH 1XXX Fine Arts and Humanities Courses ¹ | 3 |
| CHEM 3301 Chemistry Seminar | 1 |
| CHEM 3324 Physical Chemistry I | 4 |
| CHEM 3423 Descriptive Inorganic Chemistry | 3 |
| Science Elective ² | 3 |
| Elective ⁴ | 1 |
| Total Hours | 15 |

| Spring | Credits |
|--|-----------|
| FAH 1XXX Fine Arts and Humanities Courses ¹ | 3 |
| CHEM 3344 Principles of Biochemistry | 4 |
| Elective ⁴ | 5 |
| Total Hours | 12 |

Senior

| Fall | Credits |
|---------------------------------|---------|
| CHEM 4414 Instrumental Analysis | 4 |
| CHEM Elective ³ | 3 |
| Elective ⁴ | 9 |
| Total Hours | |

| Spring | Credits |
|---|---------|
| SFHS 1XXX Social Sciences/Fine Arts/Humanities/Communication Courses ¹ | 3 |
| CHEM 4401 Chemistry Seminar | 1 |
| CHEM Elective ³ | 3 |
| Elective ⁴ | 9 |

| Spring | Credits |
|--------------------|-----------|
| Total Hours | 16 |

¹See appropriate alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.

²Science electives from BIOL, GEOL, PHYS, PHSC (excluding BIOL 1014 Introduction to Biological Science PHSC 1013 Introduction to Physical Science and PHSC 1021 Physical Science Laboratory), and excluding CHEM.

³Excluding CHEM 1113 A Survey of Chemistry and CHEM 1111 Survey of Chemistry Laboratory.

⁴German, Statistics, and Technical Communications are encouraged. (Electives must include sufficient upper-division courses to result in 40 upper division hours) (upper division = 3000-4000 level).