

Chemistry Major - Science Option (BS)

Suggested Plan of Study

2020-2021 Catalog

| Fall - Semester 1 | | Spring - Semester 2 | |
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| CHEM 1501 Background & Strategies in CHEM | 1 | ENGL 1123 Composition II | 3 |
| ENGL 1113 Composition I | 3 | MATH 1525 Calculus I | 5 |
| MATH 1045 Pre-Calculus Mathematics | 5 | *HIST 1003 or 1013 World History I or II OR HIST 2013 or 2023 U.S. History I or II or PSCI 2003 American Government: National | 3 |
| CHEM 1023/1021 University Chemistry I/Lab | 4 | CHEM 1123/1121 University Chemistry II/Lab | 4 |
| GSTD 1002 Freshman Seminar | 2 | | |
| Total Semester Hours | 15 | Total Semester Hours | 15 |
| Fall - Semester 3 | | Spring - Semester 4 | |
| World Literature I/II (ENGL 2213 or ENGL 2223) | 3 | CHEM 2012/2001 Analytical Chemistry/Lab | 3 |
| BIOL 1203/1201 Principles of Biology I/Lab | 4 | MATH 1545 Calculus II | 5 |
| CHEM 3003/3001 Organic Chemistry I/Lab | 4 | CHEM 3103/3101 Organic Chemistry II/Lab | 4 |
| SPCH 1113 Introduction to Public Speaking | 3 | ENGL 3003 Advanced Professional Writing | 3 |
| Total Semester Hours | 14 | Total Semester Hours | 15 |
| Fall - Semester 5 | | Spring - Semester 6 | |
| Fine Arts/Humanities (ART 1103 or ART 2013, HUM 2003, ENGL 2213, ENGL 2223, MUS 2003 or MUS 2013, PHIL 2403, THEA 2003, or Foreign Language) | 4 | CHEM 3233/3231 Intermediate Inorganic Chemistry CHEM 3231 Intermediate Inorganic Chemistry Lab** | 3-4** |
| CHEM 3313/3311 Instrumentation I/Lab or CHEM 4313/4311 Instrumentation II/Lab | 4 | CHEM 3073/3071 Biochemistry I CHEM 3071 Biochemistry I Lab ** | 3-4** |
| PHYS 2203/2201 University Physics I/Lab | 4 | PHYS 2213/2211 University Physics II/Lab | 4 |
| MATH 2563 Calculus III | 3 | CHEM Elective | 2 |
| Social Science choice (ECON 2103, FIN 2003, GEOG 2003, PSCI 2003, PSYC 2003, SOC 1003 or SOC 2003) | 3 | Fine Arts/Humanities (ART 1103 or ART 2013, HUM 2003, ENGL 2213, ENGL 2223, MUS 2003 or MUS 2013, PHIL 2403, or THEA 2003) | 3 |
| Total Semester Hours | 17 | Total Semester Hours | 16 |
| Fall - Semester 7 | | Spring - Semester 8 | |
| CHEM 4403/4401 Physical Chemistry: Thermodynamics/Lab | 4 | CHEM 4413/4411 Physical Chemistry: Quantum and Kinetics/Lab | 4 |
| CHEM 4051 Senior Seminar | 1 | CHEM 4701-2 Undergraduate Research | 2 |
| CHEM 4701 Undergraduate Research | 1 | Elective | 6 |
| Science and Engineering Elective | 3 | *HIST 1003 or 1013 World History I or II OR HIST 2013 or 2023 U.S. History I or II or PSCI 2003 American Government: National | 3 |
| CHEM 3313/3311 Instrumentation I/Lab or CHEM 4313/4311 Instrumentation II/Lab | 4 | | |
| Total Semester Hours | 13 | Total Semester Hours | 15 |

Total hours required for major – 120

*Note: Must have six hours of history/government. Three hours must be World History I or II. Three hours must be U.S. History I, U.S. History II or American Government: National.

Chemistry Electives

**Either CHEM 3231 or CHEM 3071 is required for the chemistry core hours.

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| CHEM 4013 Advanced Organic Chemistry | CHEM 4701-3 Undergraduate Research |
| CHEM 4033 Advanced Inorganic Chemistry | CHEM 4791-3 Advanced Topics in Chemistry I |
| CHEM 4043/4041 Advanced Analytical Chemistry/Lab | CHEM 4891-3 Advanced Topics in Chemistry II |
| CHEM 4073 Biochemistry II | CHEM 4991-3 Advanced Topics in Chemistry III |