**"W" Number:**_____
**Student Name:**_____
**Advisor Name:**_____

**Catalog: 2021-2022 University of Wyoming Catalog**
**Program: Chemistry, B.A.**

# Chemistry, B.A.

The department offers both, B.A. and B.S. degree programs. The B.A. degree includes a minimum of 32 hours of chemistry. The Plan 1 B.S. degree requires at least 38 hours. The Plan 2 B.S. requires 46 hours of chemistry courses. Since the chemistry required in the first two years of all programs is the same, students interested in pursuing a chemistry major can elect any program initially. Discussions with a departmental adviser will allow students to choose the most appropriate major for their career objectives. In general, students planning graduate work in chemistry should elect one of the B.S. programs. The B.A. program has a more liberal content with additional electives. It would support careers in business, law and advanced study in areas needing a strong chemistry background such as toxicology or forensic science.

A B.A. is suitable for students in the College of Education who wish to obtain an A&S degree, and may also be appropriate for some premedical tracks. The Plan 2 (CACS) program is designed to meet standards set by the American Chemical Society (ACS). A student who completes the Plan 2 B.S. program will be certified by the Department of Chemistry to the ACS as having met the specific ACS requirements for undergraduate professional training in chemistry. Students must obtain a grade of C- of higher in each of the chemistry, physics or math courses specifically required for their degree.

## Plan 1

*(32 hours of chemistry)*

### Course Requirements

| Course Name | Credits: | Term Taken | Grade | Gen Ed |
|---|---|---|---|---|
| MATH2200 - Calculus I | Credits: 4 | | | |
| MATH2205 - Calculus II | Credits: 4 | | | |
| • **Additional USP requirements** Credits: 21<br>• **Additional A&S core requirements** Credits: 6<br>• **Electives** Credits: 45 | | | | |

### Basic Chemistry: 26 Hours

| Course Name | Credits: | Term Taken | Grade | Gen Ed |
|---|---|---|---|---|
| CHEM1050 - Advanced General Chemistry I **AND** | Credits: 4 | | | |
| CHEM1060 - Advanced General Chemistry II | Credits: 4 | | | |
| **OR** | | | | |
| CHEM1020 - General Chemistry I **AND** | Credits: 4 | | | |
| CHEM1030 - General Chemistry II | Credits: 4 | | | |
| | | | | |
| CHEM2230 - Quantitative Analysis | Credits: 5 | | | |
| CHEM2420 - Organic Chemistry I | Credits: 4 | | | |
| CHEM2440 - Organic Chemistry II | Credits: 4 | | | |
| | | | | |
| CHEM3550 - Physical Chemistry for the Life Sciences | Credits: 3 | | | |
| **OR** | | | | |
| CHEM4507 - Physical Chemistry I | Credits: 3 | | | |
| | | | | |
| CHEM4110 - Introductory Inorganic Chemistry | Credits: 3 | | | |

### Additional Upper-Level Chemistry: 6 Hours

(Including one of the following)

| Course Name | Credits: | Term Taken | Grade | Gen Ed |
|---|---|---|---|---|
| CHEM4100 - Inorganic Chemistry Laboratory | Credits: 2 | | | |
| CHEM4230 - Instrumental Methods of Chemical Analysis | Credits: 5 | | | |
| CHEM4530 - Physical Chemistry Laboratory II | Credits: 1 | | | |

### PHYS: 8 Hours

| Course Name | Credits: | Term Taken | Grade | Gen Ed |
|---|---|---|---|---|
| PHYS1310 - College Physics I **AND** | Credits: 4 | | | |
| PHYS1320 - College Physics II | Credits: 4 | | | |
| **OR** | | | | |
| PHYS1110 - General Physics I **AND** | Credits: 4 | | | |

| | | | | |
|---|---|---|---|---|
| PHYS1120 - General Physics II | Credits: 4 | | | |
| **OR** | | | | |
| PHYS1210 - Engineering Physics I **AND** | Credits: 4 | | | |
| PHYS1220 - Engineering Physics II | Credits: 4 | | | |

## Minimum Total: 120 Hours

# Suggested Program for a Bachelor's Degree in Chemistry

*(Freshman and Sophomore Years)*

## Suggested Course Sequence

### Freshman Year: Fall

| Course Name | Credits: | Term Taken | Grade | Gen Ed |
|---|---|---|---|---|
| CHEM1050 - Advanced General Chemistry I | Credits: 4 | | | |
| **OR** | | | | |
| CHEM1020 - General Chemistry I | Credits: 4 | | | |
| | | | | |
| ENGL1010 - College Composition and Rhetoric | Credits: 3 | | | |
| MATH2200 - Calculus I | Credits: 4 | | | |
| • A&S Core or University Studies Requirements Credits: 3-4 | | | | |

**Total: 14-15 Hours**

### Freshman Year: Spring

| Course Name | Credits: | Term Taken | Grade | Gen Ed |
|---|---|---|---|---|
| CHEM1060 - Advanced General Chemistry II | Credits: 4 | | | |
| **OR** | | | | |
| CHEM1030 - General Chemistry II | Credits: 4 | | | |
| | | | | |
| MATH2205 - Calculus II | Credits: 4 | | | |
| • A&S core or University Studies requirements Credits: 6-8 | | | | |

**Total: 14-16 Hours**

### Sophomore Year: Fall

| Course Name | Credits: | Term Taken | Grade | Gen Ed |
|---|---|---|---|---|
| CHEM2420 - Organic Chemistry I | Credits: 4 | | | |
| | | | | |
| PHYS1310 - College Physics I | Credits: 4 | | | |
| **OR** | | | | |
| PHYS1210 - Engineering Physics I | Credits: 4 | | | |
| **OR** | | | | |
| PHYS1110 - General Physics I | Credits: 4 | | | |
| • A&S core or University Studies requirements Credits: 3-4 | | | | |

**Total: 15-16 Hours**

### Sophomore Year: Spring

| Course Name | Credits: | Term Taken | Grade | Gen Ed |
|---|---|---|---|---|
| CHEM2440 - Organic Chemistry II | Credits: 4 | | | |
| CHEM2230 - Quantitative Analysis | Credits: 5 | | | |
| | | | | |
| PHYS1320 - College Physics II | Credits: 4 | | | |
| **OR** | | | | |
| PHYS1220 - Engineering Physics II | Credits: 4 | | | |
| **OR** | | | | |
| PHYS1120 - General Physics II | Credits: 4 | | | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| • A&S core or University Studies requirements Credits: 3-4 | | | | |
| **Total: 15-16 Hours** | | | | |
| **Notes:** | | | | |