# Academic Plan for a B.S. in Chemistry

## FRESHMAN YEAR

### Fall
- CHEM 151* 4
- MATH 122A/B (or 125) 5 (3)
- ENGL 101 3
- TIER 1 3
- **Total** 13-15

### Spring
- CHEM 152* 4
- MATH 129 3
- ENGL 102 3
- TIER 1 3 (or 6)
- **Total** 13-16

## SOPHOMORE YEAR

### Fall
- CHEM 246A/247A* 5
- CHEM 380 or MATH 223 3/4
- PHYS 141 4
- Second Language 4
- **Total** 16-17

### Spring
- CHEM 246B/247B* 5
- CHEM 395A 1
- PHYS 241 4
- Second Language 4
- TIER 1 3
- **Total** 14-17

## JUNIOR YEAR

### Fall
- CHEM 325* 2
- CHEM 326* 2
- BIOC 462A*~ 4
- TIER 1/2 6
- Optional Elective 3
- **Total** 12-18

### Spring
- CHEM 401A* 3
- CHEM 404A* 3
- CHEM Elective 3/2
- TIER 2/Electives 3-9
- **Total** 12-18

## SENIOR YEAR

### Fall
- CHEM 480A* 3
- CHEM 400A* 3
- CHEM Elective 3/2
- TIER 2/Electives 3-9
- **Total** 12-18

### Spring
- CHEM 480B* or 481* 3
- CHEM 412* 3
- CHEM 400B* 3
- CHEM Elective 3/2
- Optional Elective 3
- **Total** 12-15

**TOTAL UNITS NEEDED: 120**

* Denotes grade of C or better grade required
~Denotes department consent required to enroll-contact CBC advisor

Classes in bold are only offered in the fall or spring semester as shown.
## B.S. Chemistry
**Catalog Year 2015–2016**

### FOUNDATION COURSES:

**i. Freshman Composition (Complete one sequence)**
- ENGL 101 (3) _____ ENGL 102 (3) _____ or
- ENGL 107 (3) _____ ENGL 108 (3) _____ or
- ENGL 109H (3) _____ MCWA____

**ii. Mathematics: Satisfied by math pre-major courses**

**iii. Second Language (Second Semester Proficiency)**

### TIER ONE COURSES:

**i. Individuals and Societies 150 (6 units)***

**ii. Traditions and Cultures 160 (6 units)***

### TIER TWO COURSES:

**i. Arts (3 units)**

**ii. Humanities (3 units)**

**iii. Individuals and Societies (3 units)**

**iv. Diversity Emphasis Requirement:** One course must meet this requirement. Can be double-dipped with Tier One or Tier Two course

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**Note:** Honors options (H) are available to substitute for a number of the listed pre-major and major courses. Courses offered only in the fall or spring semesters are labeled with F or S.

* Tier 1 coursework must be uniquely lettered within each category.

<table>
<thead>
<tr>
<th>CBC Website</th>
<th>UA Academic Catalogs</th>
<th>Research Website</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="QR" alt="CBC Website" /></td>
<td><img src="QR" alt="UA Academic Catalogs" /></td>
<td><img src="QR" alt="Research Website" /></td>
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### PRE-MAJOR COURSES: (17–20 units)

**Mathematics**
- MATH 122A/B (5) or 125 (3) _____
- MATH 129 (3) _____
- CHEM 380 (3; F) or MATH 223 (4) _____

**Physics**
- PHYS 141 (4) _____
- PHYS 241 (4) _____

### MAJOR COURSES: (56 units); must earn a C or better in all major courses

**General Chemistry**
- CHEM 151 (4) _____ CHEM 152 (4) _____

**Organic Chemistry**
- CHEM 246A (3; F) _____ CHEM 247A (2; F) _____
- CHEM 246B (3; S) _____ CHEM 247B (2; S) _____

**Majors Colloquium**
- CHEM 395A (1; S) _____

**Quantitative Analysis (Analytical Chemistry)**
- CHEM 325 (2) _____ CHEM 326 (2) _____

**Instrumental Analysis**
- CHEM 401A (3; S) _____ CHEM 400A (3; F) _____

**Inorganic Chemistry**
- CHEM 404A (3; S) _____ CHEM 412 (3) _____

**Biochemistry**
- BIOC 462A (4; F) _____

**Physical Chemistry**
- CHEM 480A (3) _____ CHEM 400B (3; S) _____
- CHEM 480B (3) or 481 (3; S)

**Core Electives** (A list of options is available in the advisement report or course catalog. Additional courses should be preapproved with a CBC Advisor before enrollment. A maximum of 3 units in research or preceptor will apply to the Chemistry major.)

- Course or Lab (3) ______________________
- Course or Lab (3) ______________________
- Course, Lab, Research or Preceptorship (2) ______

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12/2/15