## BS in Chemistry
*American Chemical Society Accredited*

### 2014 – 2015 Catalog

**Total Credit Hours Required:** 120  
**Advanced Credit Hours Required:** 36 (3000 level or above)

### Required Chemistry Courses

**General Chemistry**
- 1441 General Chemistry I and Lab
- 1442 General Chemistry II and Lab  
  *(Prerequisite: CHEM 1441)*

**Organic Chemistry**
- 2321 Organic Chemistry I *(Prerequisite: CHEM 1442)*
- 2181 Organic Chemistry I Lab *(Corequisite: CHEM 2321)*
- 2322 Organic Chemistry II *(Prerequisite: CHEM 2321)*
- 2182 Organic Chemistry II Lab *(Corequisite: CHEM 2322)*

**Quantitative Chemistry**
- 2335 Quantitative Chemistry *(Prerequisite: CHEM 1442)*
- 2285 Quantitative Chemistry Lab *(Corequisite: CHEM 2335)*

**Physical Chemistry**
- 3321 Physical Chemistry I *(Prerequisite: CHEM 2335, 8 hours physics, MATH 2326)*  
  *(Concurrent: MATH 3319 encouraged)*
- 3181 Physical Chemistry I Lab *(Corequisite: CHEM 3321)*
- 3322 Physical Chemistry II *(Prerequisite: CHEM 2335, 8 hours of physics, MATH 2326)*
- 3182 Physical Chemistry II Lab  
  *(Corequisite: CHEM 3322)*

**Inorganic Chemistry**
- 3317 Inorganic Chemistry I  
  *(Pre/Corequisite: CHEM 2322)*
- 4318 Inorganic Chemistry II  
  *(Prerequisite: CHEM 2322)*

**Biochemistry**
- 4311 General Biochemistry I  
  *(Prerequisite: CHEM 2322)*

**Other Chemistry**
- 4101 Seminar in Chemistry  
  *(Prerequisite: Senior standing in chemistry)*
- 4346 Advanced Synthetic Methods  
  *(Prerequisite: CHEM 2182, 2322, 3317/4318)*
- 4461 Instrumental Analysis  
  *(Prerequisite: CHEM 2335, 2285)*
- 3 hours of 3000 level or above *(must be pre-approved)*

### Other Required Courses

**English**
- 1301 Critical Thinking, Reading, and Writing I
- 1302 Critical Thinking, Reading, and Writing II

**Language, Philosophy, and Culture**
- 3 hours of an approved course *(see Catalog)*

**Social and Behavioral Sciences**
- 3 hours of an approved course *(see Catalog)*

**Creative Arts**
- 3 hours of an approved course *(see Catalog)*

**Political Science**
- 2311 Government of the United States
- 2312 State and Local Government

**History**
- 1311 History of the United States *(→1865)*
- 1312 History of the United States *(1865→)*

**Foundational Component Area**
- 3 hours of an approved course *(see Catalog)*

**Computer Competency**
- CSE 1301 or passing score on Computer Skills Placement Test

**Mathematics**
- 1426 Calculus I
- 2425 Calculus II
- 2326 Calculus III
- 3319 Differential Equations *(3318 is also accepted)*

**Physics**
- 1443 General Technical Physics I  
  *(Pre/Corequisite: MATH 1426)*
- 1444 General Technical Physics II  
  *(Pre/Corequisite: MATH 2425)*
- 3 hours at 3000 level or above *(3313 recommended)*

**Other Natural Science**
- 6-8 hours of biology or 6-8 hours of geology

**Electives**
- Sufficient to reach 120 total credit hours
- Sufficient to reach 36 advanced hours

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**Undergraduate Advisor**  
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Chemistry and Physics Building Room 130  
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Fax: (817) 272 - 3808
## Math, Physics, and Chemistry Pre- and Corequisites Flow Chart
(grade of “C” or better is required to meet prerequisites)

### Suggested Course Sequence

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Credit Hours</th>
<th>Spring Credit Hours</th>
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<tbody>
<tr>
<td><strong>First</strong></td>
<td>15 credit hours</td>
<td>15 credit hours</td>
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<tr>
<td></td>
<td>CHEM 1441</td>
<td>CHEM 1442</td>
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<td>MATH 1426</td>
<td>MATH 2425</td>
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<td>ENGL 1301</td>
<td>ENGL 1302</td>
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<td>BIOL 1441 or GEOL 1425</td>
<td>BIOL 1442 or GEOL 1426</td>
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<tr>
<td><strong>Second</strong></td>
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<td>MATH 2326</td>
<td>MATH 3318 or 3319</td>
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<td>PHYS 1443</td>
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<td></td>
<td>Language, Philosophy, and Culture</td>
<td>CHEM 2335 and 2285</td>
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<td>CHEM 2321 and 2181</td>
<td>CHEM 2322 and 2182</td>
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<td><strong>Third</strong></td>
<td>16 credit hours</td>
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<td>CHEM 3321 and 3181</td>
<td>CHEM 3322 and 3182</td>
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<td>CHEM 3317</td>
<td>CHEM 4318</td>
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<td>PHYS 3313</td>
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<td>POLS 2311</td>
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<td></td>
<td>Social and Behavioral Sciences</td>
<td>Foundational Component Area</td>
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<tr>
<td><strong>Fourth</strong></td>
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<td>18 credit hours</td>
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<td>CHEM 4311</td>
<td>CHEM 4346</td>
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<td>CHEM 4101</td>
<td>CHEM 3000 or 4000</td>
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<td>CHEM 4461</td>
<td>HIST 1312</td>
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<td>HIST 1311</td>
<td>Computer Competency</td>
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<tr>
<td></td>
<td>Electives</td>
<td>Electives</td>
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*Minimum GPA Required: 2.25 in CHEM, 2.25 in COS, and 2.25 Overall.

**NOTE:** For a thorough explanation of degree requirements please consult the Undergraduate Catalog.