## B.A. Chemistry

Students pursuing a Bachelor of Arts in Chemistry should complete ENGL 1101 or ENGL 1101P, and COMM 1101 during the freshman year, and ENGL 1102 should be passed by, or during, the sophomore year. (General Education Objective 1 is satisfied by taking ENGL 1101 or ENGL 1101P, AND ENGL 1102. General Education Objective 2 is satisfied by COMM 1101.) Objective 3 should be fulfilled by MATH 1160 or MATH 1170 as early as possible. The other General Education Requirements should be taken as credit load allows. Students pursuing this degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits - see the General Education Requirements (http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/) described in the Academic Information section of this catalog).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 1101 &amp; 1101L</td>
<td>Biology I and Biology I Lab</td>
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<tr>
<td>CHEM 1111 &amp; 1111L</td>
<td>General Chemistry I and General Chemistry I Lab</td>
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<tr>
<td>CHEM 1112 &amp; 1112L</td>
<td>General Chemistry II and General Chemistry II Lab</td>
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<tr>
<td>MATH 1170 or MATH 1160</td>
<td>Calculus I or Survey of Calculus</td>
<td>3-4</td>
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<tr>
<td>PHYS 1111 &amp; PHYS 1113 &amp; PHYS 1112 &amp; PHYS 1114</td>
<td>General Physics I and General Physics I Laboratory and General Physics II and General Physics II Laboratory</td>
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<td>OR</td>
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<td>PHYS 2211 &amp; PHYS 2213 &amp; PHYS 2212 &amp; PHYS 2214</td>
<td>Engineering Physics I and Engineering Physics I Laboratory and Engineering Physics II and Engineering Physics II Laboratory</td>
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<td>CHEM 2211</td>
<td>Inorganic Chemistry I</td>
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<td>CHEM 2213</td>
<td>Inorganic Chemistry I Laboratory</td>
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<td>CHEM 2232 &amp; CHEM 2234</td>
<td>Quantitative Analysis and Quantitative Analysis Laboratory</td>
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<td>CHEM 3301 &amp; CHEM 3303</td>
<td>Organic Chemistry I and Organic Chemistry Laboratory I</td>
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<tr>
<td>CHEM 3302 &amp; CHEM 3304</td>
<td>Organic Chemistry II and Organic Chemistry Laboratory II</td>
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<tr>
<td>CHEM 3341 &amp; CHEM 3342</td>
<td>Topics in Physical Chemistry I and Topics in Physical Chemistry II</td>
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<td>OR</td>
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<tr>
<td>CHEM 3351 &amp; CHEM 3352</td>
<td>Physical Chemistry I and Physical Chemistry II</td>
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<td>CHEM 3391</td>
<td>Seminar</td>
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<td>BIOL 4432 or CHEM 4445</td>
<td>Biochemistry or Biochemistry I</td>
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</table>

### Electives

Students must take 8 additional upper-division (3000-4000 level) credits in chemistry, approved by the department and not to include CHEM 4491. No more than 2 credits of CHEM 3311 and 2 credits in CHEM 4481-CHEM 4482 may be used to satisfy these electives. If the CHEM 4445 and CHEM 4447 sequence is taken, 3 credits may be used to satisfy elective credits. No more than 40 credits in chemistry will count toward graduation in this program.

ISU Degree Requirements (http://coursecat.isu.edu/undergraduate/degerequirements/)

Major Academic Plan (MAP) (https://www.isu.edu/advising/maps/)