The Bachelor of Arts program, through the availability of a generous number of electives, gives the student a firm and broadly-based foundation in chemistry, with the option of pursuing other educational objectives involving specialization in at least one other field in depth. This objective is accomplished by means of the BA program flexibility and by the inclusion of a minor area of study in another discipline. Additional elective hours allow further diversification.

The BA degree offers somewhat more flexibility than the BS program, in terms of tailoring a program of study that combines chemistry with an interest in subject areas such as biochemistry, biology, business, computer science, education, forensics, medicine or physics. Although the BA program may in any specific case turn out to be a somewhat less technical curriculum, it meets the needs of many students who plan to use chemistry as a springboard to a career in chemical sales, marketing, law, technical writing, teaching at a pre-college level, science journalism, etc., to name only a few possibilities.

A BA degree in Chemistry coupled with a minor in Biology, or completion of a biological chemistry track, is excellent preparation for a variety of careers in the health-related disciplines. In particular, a BA degree in Chemistry is excellent and proven preparation for medical and dental schools, and affords the superior student the opportunity to maintain flexibility for a broad spectrum of medical or dental careers.

Although not required for the BA program, abundant research opportunities are available to students. The BA program also permits and encourages non-technical elective courses.

### Program Requirements

**Course** | **Title** | **Semester Credit Hours**
---|---|---
**First Year**
**Fall**
CHEM 100 | Horizons in Chemistry | 1
CHEM 119 | Fundamentals of Chemistry I | 4
ENGL 104 | Composition and Rhetoric | 3
MATH 151 | Engineering Mathematics I | 4
or MATH 171 | or Calculus I | 3
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) | 3

**Spring**
CHEM 120 | Fundamentals of Chemistry II | 4
MATH 152 | Engineering Mathematics II | 4
or MATH 172 | or Calculus II | 3
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) | 3
General elective | 4

**Second Year**
**Fall**
CHEM 227 | Organic Chemistry I | 3

<table>
<thead>
<tr>
<th><strong>Course</strong></th>
<th><strong>Title</strong></th>
<th><strong>Semester Credit Hours</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 231</td>
<td>Techniques of Organic Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 206</td>
<td>Newtonian Mechanics for Engineering and Science</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 226</td>
<td>Physics of Motion Laboratory for the Sciences</td>
<td>1</td>
</tr>
<tr>
<td>POLS 207</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>Language, philosophy and culture (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture</a>)</td>
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</table>

**Semester Credit Hours** | **15**

**Spring**
CHEM 228 | Organic Chemistry II | 3 |
CHEM 234 | Organic Synthesis and Analysis | 3 |
PHYS 207 | Electricity and Magnetism for Engineering and Science | 3 |
PHYS 227 | Electricity and Magnetism Laboratory for the Sciences | 1 |
POLS 206 | American National Government | 3 |
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication) | 3 |

**Semester Credit Hours** | **16**

**Third Year**
**Fall**
CHEM 315 | Fundamentals of Quantitative Analysis | 3 |
CHEM 318 | Quantitative Analysis Laboratory | 1 |
CHEM 327 | Physical Chemistry I | 3 |
Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) | 3 |
General electives | 6 |

**Semester Credit Hours** | **16**

**Spring**
CHEM 325 | Physical Chemistry Laboratory I | 1 |
CHEM 328 | Physical Chemistry II | 3 |
Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences) | 3 |
General electives | 9 |

**Semester Credit Hours** | **16**

**Fourth Year**
**Fall**
CHEM 326 | Physical Chemistry Laboratory II | 1 |
CHEM 481 | Seminar | 2 |
Select one of the following: | 3 |
BICH 410 | Comprehensive Biochemistry I | |
BICH 411 | Comprehensive Biochemistry II | |
BICH 440 | Biochemistry I | |
BICH 441 | Biochemistry II | |
CHEM 362 | Descriptive Inorganic Chemistry | |
CHEM 415 | Analytical Chemistry | |
CHEM 416 | Organic Chemistry III | |
CHEM 456 | Chemical Biology | |
CHEM 462 | Inorganic Chemistry | |

**Semester Credit Hours** | **16**
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>CHEM 464</td>
<td>Nuclear Chemistry</td>
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<tr>
<td>CHEM 466</td>
<td>Polymer Chemistry</td>
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<tr>
<td>CHEM 468</td>
<td>Materials Chemistry of Inorganic Materials</td>
</tr>
<tr>
<td>CHEM 470</td>
<td>Industrial Chemistry</td>
</tr>
<tr>
<td>CHEM 483</td>
<td>Green Chemistry</td>
</tr>
<tr>
<td>CHEM 489</td>
<td>Special Topics in...</td>
</tr>
<tr>
<td>PHYS 309</td>
<td>Modern Physics</td>
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</table>

General electives 2  

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<tr>
<th>Semester Credit Hours</th>
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</table>

**Spring**

Select one of the following: 3  

- BICH 410  Comprehensive Biochemistry I  
- BICH 411  Comprehensive Biochemistry II  
- BICH 440  Biochemistry I  
- BICH 441  Biochemistry II  
- CHEM 362  Descriptive Inorganic Chemistry  
- CHEM 415  Analytical Chemistry  
- CHEM 446  Organic Chemistry III  
- CHEM 456  Chemical Biology  
- CHEM 462  Inorganic Chemistry  
- CHEM 464  Nuclear Chemistry  
- CHEM 466  Polymer Chemistry  
- CHEM 470  Industrial Chemistry  
- CHEM 468  Materials Chemistry of Inorganic Materials  
- CHEM 483  Green Chemistry  
- CHEM 489  Special Topics in...  
- PHYS 309  Modern Physics  

General electives 2  

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<tr>
<th>Semester Credit Hours</th>
<th>12</th>
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</table>

Total Semester Credit Hours 120  

1 Choose a section designated for chemistry majors.  
2 Select any course 100-499 not used elsewhere except AERS 100-299 (http://catalog.tamu.edu/undergraduate/course-descriptions/aers/); CHEM 222, CHEM 242, MATH 102, MATH 140, MATH 142, MATH 167, MATH 168; MLSC 100-299 (http://catalog.tamu.edu/undergraduate/course-descriptions/mlsc/); NVSC 100-299 (http://catalog.tamu.edu/undergraduate/course-descriptions/nvsc/); PHYS 201, PHYS 202, PHYS 205. General elective hours must be used to complete a required minor approved by the granting department.  
3 This is a designated C- or W-course.  

Graduation requirements include a requirement for 3 hours of International and Cultural Diversity (http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/) courses and 3 hours of Cultural Discourse (http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/) courses. A course satisfying a Core category, a college/department requirement, or a general elective can be used to satisfy this requirement.  

Chemistry majors may take CHEM 485 or CHEM 491 as elective courses. The total hours of CHEM 485 and CHEM 491 taken on a graded (A-F) basis may not exceed 9. Additional hours of these courses may be taken on an S/U basis. A maximum of 6 hours of these courses may be included on the degree plan.  

Electives should be chosen in consultation with the chemistry advisor and should be selected to meet the residency requirement (36 hours at 300-400-level must be taken at Texas A&M).