## CHEMISTRY - BA, CHEMICAL EDUCATION TRACK

### Program Requirements

#### First Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>ARSC 201</td>
<td>Self-Directed Experiences with Adolescents</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHEM 100</td>
<td>Horizons in Chemistry</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHEM 119</td>
<td>Fundamentals of Chemistry I</td>
<td>1</td>
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<tr>
<td></td>
<td>ENGL 104</td>
<td>Composition and Rhetoric</td>
<td>3</td>
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<tr>
<td></td>
<td>ENGL 210</td>
<td>Technical and Professional Writing</td>
<td>3</td>
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<tr>
<td></td>
<td>MATH 151</td>
<td>Engineering Mathematics I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MATH 171</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td></td>
<td>American history</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 104</td>
<td>Composition and Rhetoric</td>
<td>3</td>
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<tr>
<td></td>
<td>ENGL 210</td>
<td>Technical and Professional Writing</td>
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<tr>
<td></td>
<td>MATH 151</td>
<td>Engineering Mathematics I</td>
<td>4</td>
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<tr>
<td></td>
<td>MATH 171</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>American history</td>
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<tr>
<td></td>
<td>American history</td>
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#### Second Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Fall</td>
<td>CHEM 227</td>
<td>Organic Chemistry I</td>
<td>3</td>
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<td></td>
<td>CHEM 231</td>
<td>Techniques of Organic Chemistry</td>
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<td>PHYS 206</td>
<td>Newtonian Mechanics for Engineering and Science</td>
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<td>PHYS 226</td>
<td>Physics of Motion Laboratory for the Sciences</td>
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<td></td>
<td>POLS 207</td>
<td>State and Local Government</td>
<td>3</td>
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<tr>
<td></td>
<td>Communication</td>
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#### Third Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
<td>CHEM 315</td>
<td>Fundamentals of Quantitative Analysis</td>
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<td>CHEM 318</td>
<td>Quantitative Analysis Laboratory</td>
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<td>CHEM 327</td>
<td>Physical Chemistry I</td>
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<tr>
<td></td>
<td>TEFB 322</td>
<td>Teaching and Schooling in Modern Society</td>
<td>3</td>
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<tr>
<td></td>
<td>Creative arts</td>
<td>3</td>
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<tr>
<td></td>
<td>Social and behavioral sciences</td>
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#### Fourth Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Fall</td>
<td>CHEM 326</td>
<td>Physical Chemistry Laboratory II</td>
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<tr>
<td></td>
<td>CHEM 481</td>
<td>Seminar</td>
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<tr>
<td></td>
<td>INST 210</td>
<td>Understanding Special Populations</td>
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<td>TEFB 406</td>
<td>Science in the Middle and Secondary School</td>
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<td>Select one of the following:</td>
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<tr>
<td></td>
<td>BICH 410</td>
<td>Comprehensive Biochemistry I</td>
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<tr>
<td></td>
<td>BICH 411</td>
<td>Comprehensive Biochemistry II</td>
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</table>
Select a section designated for chemistry majors.

2 This is a designated oral communication (C) or writing (W) course.

3 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.

4 Students planning to become certified to teach should reserve this semester for a clinical teaching semester.

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.

BA 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. (http://catalog.tamu.edu/undergraduate/general-information/degree-information/#requirementsforabaccalaureatedegreetext)