# Chemistry 7-12 Teaching Subject Endorsement, Bachelor of Science in Education

Offered by Department of Chemistry ([http://catalog.unk.edu/undergraduate/departments-programs/chemistry](http://catalog.unk.edu/undergraduate/departments-programs/chemistry))

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Studies</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Foundational Core (Written, Math, Oral, Democracy)</em></td>
<td></td>
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<tr>
<td></td>
<td>ENG 102 Academic Writing and Research</td>
<td>3</td>
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<tr>
<td></td>
<td>MATH 115 Calculus I with Analytic Geometry</td>
<td>5</td>
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<tr>
<td></td>
<td>SPCH 100 Fundamentals of Speech Communication</td>
<td>3</td>
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<tr>
<td></td>
<td>TE 100 Teaching in a Democratic Society</td>
<td>3</td>
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<td></td>
<td><strong>Portal</strong></td>
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<td></td>
<td>Select one course numbered 188 (<a href="http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/portal-course">http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/portal-course</a>)</td>
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<tr>
<td></td>
<td><strong>Distribution</strong></td>
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<td></td>
<td>ENG 101 Introduction of Academic Writing</td>
<td>3</td>
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<tr>
<td></td>
<td>If ENG 101 is not taken as a prerequisite for ENG 102 then additional hours may be required to meet the 27 credit hour minimum in the Distribution Area of General Studies.</td>
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<td>Aesthetics (<a href="http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/aesthetics">http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/aesthetics</a>)</td>
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<td>Humanities (<a href="http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/humanities">http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/humanities</a>)</td>
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<td>Social Sciences (<a href="http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/social-sciences">http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/social-sciences</a>)</td>
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<tr>
<td></td>
<td><strong>Including:</strong></td>
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<td>PSCI 110 Introduction to American Politics</td>
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<td></td>
<td>Natural Sciences (<a href="http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/natural-sciences">http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/natural-sciences</a>)</td>
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<td><strong>Select one of the following:</strong></td>
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<tr>
<td></td>
<td>BIOL 105 Biology I</td>
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<tr>
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<td>BIOL 106 Biology II</td>
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<td><strong>Select one of the following:</strong></td>
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<tr>
<td></td>
<td>PHYS 205 General Physics I &amp; 205L</td>
<td></td>
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<td>PHYS 275 General Physics I &amp; 275L</td>
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<td></td>
<td><strong>Analytical and Quantitative Thought</strong></td>
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<td>(<a href="http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/analytical-quantitative-thought">http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/analytical-quantitative-thought</a>)</td>
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<tr>
<td></td>
<td><strong>Wellness</strong></td>
<td>3</td>
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<td></td>
<td>(<a href="http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/wellness">http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/wellness</a>)</td>
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<tr>
<td></td>
<td><strong>Professional Sequence</strong></td>
<td>25</td>
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<td>Select 25 credit hours including the following:</td>
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<tr>
<td></td>
<td>TE 206 Instructional Technology and the Preservice Teacher</td>
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<tr>
<td></td>
<td>TE 306 Reading and Inclusion in K-12 Classrooms</td>
<td></td>
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<tr>
<td></td>
<td>TE 319 Management and Assessment in K-12/ Secondary Classrooms</td>
<td></td>
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<tr>
<td></td>
<td>TE 320 Field Experience in Secondary Classroom</td>
<td></td>
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<tr>
<td></td>
<td><strong>Endorsement</strong></td>
<td>34</td>
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<tr>
<td></td>
<td>Complete all required courses</td>
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<tr>
<td></td>
<td><strong>Unrestricted electives</strong></td>
<td>11</td>
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<tr>
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<td>Needed to reach 120 credit hour minimum</td>
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<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
<td>120</td>
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## Endorsement

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td></td>
<td><strong>Chemistry Subject Endorsement Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>CHEM 160 General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CHEM 160L General Chemistry Laboratory</td>
<td>1</td>
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<tr>
<td></td>
<td>CHEM 161 General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CHEM 161L General Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHEM 269 Sophomore Seminar in Chemistry</td>
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<tr>
<td></td>
<td>CHEM 301 Analytical Chemistry</td>
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<tr>
<td></td>
<td>CHEM 301L Analytical Chemistry Lab</td>
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<tr>
<td></td>
<td>CHEM 351 Biochemistry</td>
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<tr>
<td></td>
<td>CHEM 351L Biochemistry Lab</td>
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<tr>
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<td>CHEM 480 Physical Chemistry</td>
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<tr>
<td></td>
<td>or CHEM 482 Physical Chemistry for the Life Sciences</td>
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<tr>
<td></td>
<td>CHEM 490L Advanced Chemistry Laboratory I</td>
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<td>Select one of the following:</td>
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<tr>
<td></td>
<td>CHEM 250 Elementary Organic Chemistry &amp; 250L Elementary Organic Chemistry Lab</td>
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<td></td>
<td>or CHEM 360 Organic Chemistry &amp; 360L Organic Chemistry Laboratory</td>
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<tr>
<td></td>
<td><strong>Chemistry Subject Endorsement Other Science Requirements</strong></td>
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<tr>
<td></td>
<td><strong>Earth Science</strong></td>
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<tr>
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<td>PHYS 201 Earth Science</td>
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<tr>
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<td><strong>Biology</strong></td>
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<td>Fulfilled by General Studies requirements above.</td>
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<td><strong>Physics</strong></td>
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<td>Fulfilled by General Studies requirements above.</td>
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<td><strong>Chemistry Subject Endorsement Methodology Requirement</strong></td>
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<td>BIOL 471 Methods in Secondary Science Teaching</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
<td>34</td>
</tr>
</tbody>
</table>
Students without sufficient preparation will also need to take the following courses, increasing the total credit hours needed:

- MATH 102
- MATH 103

BIOL 105 would fulfill the prerequisite requirement for BIOL 471.

Students must apply for admission to all Teacher Education programs (http://catalog.unk.edu/undergraduate/departments-programs/teacher-education/professional-sequence-education-degrees)