# Major in Chemistry, Concentration in Materials Science and Inorganic Chemistry

## Requirements for a Major in Chemistry, Concentration in Materials Science and Inorganic Chemistry

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td></td>
<td>(46 credits)</td>
</tr>
<tr>
<td>CH-120</td>
<td>General Chemistry I</td>
<td>8</td>
</tr>
<tr>
<td>&amp; CH-121</td>
<td>and General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CH-201</td>
<td>Organic Chemistry I (lecture)</td>
<td>6</td>
</tr>
<tr>
<td>&amp; CH-202</td>
<td>and Organic Chemistry II (lecture)</td>
<td></td>
</tr>
<tr>
<td>CH-203</td>
<td>Organic Chemistry Laboratory I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CH-204</td>
<td>and Organic Chemistry Laboratory II</td>
<td></td>
</tr>
<tr>
<td>CH-301</td>
<td>Physical Chemistry I (Lecture Only)</td>
<td>6</td>
</tr>
<tr>
<td>&amp; CH-302</td>
<td>and Physical Chemistry II (Lecture Only)</td>
<td></td>
</tr>
<tr>
<td>CH-260</td>
<td>Chemistry Literature Seminar</td>
<td>1</td>
</tr>
<tr>
<td>CH-210</td>
<td>Chemical Analysis: an Introduction to Modern Methods</td>
<td>5</td>
</tr>
<tr>
<td>CH-303</td>
<td>Physical Chemistry Laboratory I</td>
<td>2</td>
</tr>
<tr>
<td>CH-475</td>
<td>Chemistry Seminar</td>
<td>2</td>
</tr>
</tbody>
</table>

Plus a minimum of 12 credits at the 300 level or above, at least one of which must be a lab course. Internships and Independent Study may contribute no more than 3 credits toward this requirement.

## Ancillary Courses (16 credits)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA-200</td>
<td>Calculus I</td>
<td>8</td>
</tr>
<tr>
<td>&amp; MA-201</td>
<td>and Calculus II</td>
<td></td>
</tr>
<tr>
<td>PY-241</td>
<td>Physics I (Mechanics)</td>
<td>8</td>
</tr>
<tr>
<td>&amp; PY-242</td>
<td>and Physics II (Electricity, Magnetism and Optics)</td>
<td></td>
</tr>
</tbody>
</table>

## Concentration in Materials Science and Inorganic Chemistry (11-13 credits)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH-340</td>
<td>Advanced Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CH-360</td>
<td>Introduction to Materials Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two of the following: 5-7

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PY-310</td>
<td>Modern Physics</td>
<td></td>
</tr>
<tr>
<td>CH-470</td>
<td>Instrumental Analysis</td>
<td></td>
</tr>
<tr>
<td>CH-495</td>
<td>Fundamentals of Chemical Research ¹</td>
<td></td>
</tr>
</tbody>
</table>

## May Substitute (0 credits)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH-480</td>
<td>Internship: Chemistry ²</td>
<td></td>
</tr>
<tr>
<td>or CH-490</td>
<td>Independent Study in Chemistry</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 73-75

¹ in appropriate topic for concentration

² in an appropriate topic for the concentration may be substituted for one of the electives with departmental approval.

Students must earn a C- or higher in all prerequisite courses in order to register for a chemistry or ancillary course.