CHEMISTRY, BIOCHEMISTRY CONCENTRATION (M.S.)

Program Requirements

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 570</td>
<td>Advanced Biochemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two of the following: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 520</td>
<td>Advanced Inorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 530</td>
<td>Advanced Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 540</td>
<td>Advanced Physical Chemistry</td>
</tr>
<tr>
<td>CHEM 560</td>
<td>Advanced Analytical Chemistry</td>
</tr>
</tbody>
</table>

Electives

Select 17-21 credits from the following: 17-21

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 510</td>
<td>Hazardous Materials Management</td>
</tr>
<tr>
<td>CHEM 520</td>
<td>Advanced Inorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 525</td>
<td>Bioinorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 530</td>
<td>Advanced Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 534</td>
<td>Separation and Analysis</td>
</tr>
<tr>
<td>CHEM 538</td>
<td>Drug Design in Medicinal Chemistry</td>
</tr>
<tr>
<td>CHEM 540</td>
<td>Advanced Physical Chemistry</td>
</tr>
<tr>
<td>CHEM 560</td>
<td>Advanced Analytical Chemistry</td>
</tr>
<tr>
<td>CHEM 574</td>
<td>Protein Structure</td>
</tr>
<tr>
<td>CHEM 575</td>
<td>Enzyme Kinetics and Mechanisms</td>
</tr>
<tr>
<td>CHEM 577</td>
<td>Nucleic Acid Biochemistry</td>
</tr>
<tr>
<td>CHEM 578</td>
<td>Biochemistry Laboratory Techniques</td>
</tr>
<tr>
<td>CHEM 579</td>
<td>Biomolecular Assay Development</td>
</tr>
<tr>
<td>CHEM 582</td>
<td>Biochemical Pharmacology</td>
</tr>
</tbody>
</table>

Select 0-6 credits from the following: 0-6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>BIOL 505</td>
<td>Experimental Cell Culture</td>
</tr>
<tr>
<td>BIOL 512</td>
<td>Topics in Modern Genetics</td>
</tr>
<tr>
<td>BIOL 547</td>
<td>Molecular Biology I</td>
</tr>
<tr>
<td>BIOL 548</td>
<td>Molecular Biology II</td>
</tr>
<tr>
<td>BIOL 594</td>
<td>Signal Transduction</td>
</tr>
<tr>
<td>BIOL 598</td>
<td>Selected Techniques in Molecular Biology</td>
</tr>
</tbody>
</table>

Research Options

Select either the Graduate Literature Search Option or the Research & Thesis option: 2-6

Graduate Literature Search

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 598</td>
<td>Graduate Literature Search</td>
</tr>
<tr>
<td>CHEM 599</td>
<td>Graduate Seminar</td>
</tr>
</tbody>
</table>

Research & Thesis

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 595</td>
<td>Graduate Research</td>
</tr>
<tr>
<td>CHEM 698</td>
<td>Master’s Thesis</td>
</tr>
</tbody>
</table>

Submit the completed Thesis original and one copy to the Graduate Office. See Thesis Guidelines for details.

Culminating Experience

Make a seminar presentation in conjunction with Research option. Graduate School must be notified when complete.

Total Credits 32