DOCTOR OF PHILOSOPHY IN CHEMISTRY

Written qualifying examination
Comprehensive examination
Dissertation and oral defense

A minimum of 72 credit hours is required for the Ph.D. in Chemistry. Students who have received an M.S. degree from another university may petition for transfer of up to 32 credit hours, applicable toward the Ph.D. degree.

Students must pass the Ph.D. qualifying examination by the end of their fourth semester in the program.

Next, students should register for 24-36 credit hours of research coursework numbered 691. To pass the comprehensive examination, students need to write a research progress report and proposal and defend it before a faculty committee. Students must pass the comprehensive exam before the end of their third year.

The final phase in the Ph.D. degree program is the successful oral defense of the dissertation and submission of a Ph.D. dissertation approved by the academic adviser and the thesis committee.

Curriculum

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>(18)</th>
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<tbody>
<tr>
<td>CHEM 584</td>
<td>Graduate Seminar in Chemistry</td>
</tr>
<tr>
<td>CHEM 585</td>
<td>Chemistry Colloquium</td>
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<tr>
<td>CHEM 684</td>
<td>Graduate Seminars in Chemistry</td>
</tr>
<tr>
<td>CHEM 685</td>
<td>Chemistry Colloquium</td>
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<tr>
<td>Select a minimum of four core courses from the following:</td>
<td>12</td>
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<tr>
<td>CHEM 455</td>
<td>Advanced Organic Chemistry</td>
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<tr>
<td>CHEM 503</td>
<td>Survey of Analytical Chemistry</td>
</tr>
<tr>
<td>CHEM 520</td>
<td>Advanced Inorganic Chemistry</td>
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<tr>
<td>CHEM 535</td>
<td>Polymer Synthesis</td>
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<tr>
<td>CHEM 550</td>
<td>Chemical Bonding</td>
</tr>
<tr>
<td>BIOL 504</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>Elective Courses</td>
<td>(18-30)</td>
</tr>
<tr>
<td>Select 18-30 credit hours in consultation with adviser</td>
<td>18-30</td>
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</tbody>
</table>

Thesis Research

<table>
<thead>
<tr>
<th>Thesis Research</th>
<th>(24-36)</th>
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<tbody>
<tr>
<td>CHEM 691</td>
<td>Research and Thesis Ph.D.</td>
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</tbody>
</table>

Minimum degree credits required: 72