## Chemistry (Professional) Option

### Freshman Year

<table>
<thead>
<tr>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Take one of the following:**
  - CHMY 141 - College Chemistry I
  - CHMY 151 - Honors College Chemistry I
- CHMY 194 - Seminar/Workshop
- **Take one of the following:**
  - M 171Q - Calculus I
  - or M 181Q - Honors Calculus I
- **University Core and Electives**
  - 6

### Sophomore Year

<table>
<thead>
<tr>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Take one of the following:**
  - CHMY 143 - College Chemistry II
  - CHMY 153 - Honors College Chemistry II
- CHMY 294 - Seminar/Workshop
- **Take one of the following:**
  - M 172Q - Calculus II
  - or M 182Q - Honors Calculus II
- **University Core and Electives**
  - 3

### Junior Year

<table>
<thead>
<tr>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- CHMY 371 - Physical Chemistry-Quantum Chemistry and Spectroscopy I
- CHMY 372 - Physical Chemistry Laboratory I
- CHMY 394 - Seminar/Workshop
- CHMY 417 - Synthetic Chemistry
- CHMY 490R - Undergraduate Research
- **University and Core Electives**
  - 3
- CHMY 373 - Physical Chemistry - Kinetics and Thermodynamics

### Senior Year

<table>
<thead>
<tr>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- BCH 441 - Biochemistry of Macromolecules
- CHMY 401 - Advanced Inorganic Chemistry
- **Physical Science Electives**
  - 6
- **University Core and Electives**
  - 3
- CHMY 421 - Advanced Instrument Analysis
- CHMY 494 - Seminar/Workshop
- CHMY 499 - Senior Thesis/Capstone
- **Physical Science Electives**
  - 3
- **University Core and Electives**
  - 7-8

**Year Total:**
- 15

**Total Program Credits:**
- 119-121

1. CHMY 421 is only offered during the spring semester of even numbered years (2018, 2020, etc)
2. Six (6) credits of CHMY 490R are tabulated. Students are encouraged to fulfill additional credits of research.
3. CHMY 499 (Senior year) is required for majors who are writing a thesis for Departmental Honors consideration.
4. A minimum of 9 credits of physical science electives are required.

A computer science (CS) course is highly recommended. A minimum of 120 credits is required for graduation; 42 of these credits must be in courses numbered 300 and above. All students are encouraged to take a 200 level English writing course. Please note that this course would be in addition to the core requirement.

### Acceptable Physical Science Electives Include

- BCH 442 - Metabolic Regulation
- BCH 444R - Biochemistry & Molecular Biology Methods
- CHMY 350 - Astrobiology
- CHMY 515 - Structure and Bonding in Inorganic Chemistry
- CHMY 516 - Mechanisms and Dynamics in Inorganic Chemistry
- CHMY 523 - Organic Reaction Mechanisms
- CHMY 524 - Mass Spectrometry
- CHMY 526 - Adv Protein NMR Spectroscopy
- CHMY 533 - Physical Organic Chemistry
- CHMY 535 - Reagent Chemistry
- CHMY 540 - Organic Synthesis
- CHMY 551 - Organic Structure Elucidation
- CHMY 554 - Organometallic Chemistry
- CHMY 557 - Quantum Mechanics
- CHMY 558 - Classical & Stat Thermodynamic
- CHMY 559 - Kinetics & Dynamics
- M 221 - Introduction to Linear Algebra
- M 274 - Introduction to Differential Equation
- M 333 - Linear Algebra
- PHSX 224 - Physics III
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 320</td>
<td>Classical Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 423</td>
<td>Electricity and Magnetism I</td>
<td>3</td>
</tr>
</tbody>
</table>
Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Times was used instead of Adobe Garamond Pro.

The editor may contact Leepfrog for a draft with the correct fonts in place.