# Microbial, Cellular & Molecular Biology Microbiology Option

## Freshman

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1020 Principles of Biology</td>
<td>3</td>
<td>BIOL 1030 Organismal Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1021 Principles of Biology Laboratory</td>
<td>1</td>
<td>BIOL 1031 Organismal Biology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1100 English Composition I</td>
<td>3</td>
<td>ENGL 1120 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1030 Fundamentals Chemistry I</td>
<td>3</td>
<td>CHEM 1040 Fundamental Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1031 Fundamental Chemistry I Laboratory</td>
<td>1</td>
<td>CHEM 1041 Fundamental Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1610 Calculus I</td>
<td>4</td>
<td>MATH 1620 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

## Sophomore

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Literature</td>
<td>3</td>
<td>Core History</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1500 General Physics I</td>
<td>4</td>
<td>PHYS 1510 General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 2070 Organic Chemistry I</td>
<td>3</td>
<td>CHEM 2080 Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2071 Organic Chemistry I Laboratory</td>
<td>1</td>
<td>CHEM 2081 Organic Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 2100 Prof Development</td>
<td>1</td>
<td>BIOL 3200 General Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3000 Genetics</td>
<td>3</td>
<td>BIOL 3201 General Microbiology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 3001 Genetics Laboratory</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

## Junior

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core History or Lit&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>Core Social Science&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3</td>
</tr>
<tr>
<td>BCHE 5180 Biochemistry I</td>
<td>3</td>
<td>Core Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>BCHE 5181 Biochemistry I Laboratory</td>
<td>1</td>
<td>BIOL 4100 Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 5200 Clinical Microbiology</td>
<td>5</td>
<td>BCHE 5190 Biochemistry II</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 5250 Microbial Evolution and Diversity</td>
<td>4</td>
<td>MMCB Electives</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

## Senior

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Social Science or Humanities&lt;sup&gt;3&lt;/sup&gt;</td>
<td>3</td>
<td>Core Social Science&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3</td>
</tr>
<tr>
<td>Core Humanities</td>
<td>3</td>
<td>BIOL 4950 Senior Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 5521 Gene Expression and Recombinant DNA Laboratory</td>
<td>2</td>
<td>BIOL 5210 Microbial Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 5260 Prokaryotic Molecular Genetics</td>
<td>3</td>
<td>Biology Electives</td>
<td>4</td>
</tr>
<tr>
<td>Biology Electives</td>
<td>3</td>
<td>MMCB Electives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>
Total Hours: 122

1. Students must complete a two-course sequence in either HIST or LIT (for example, World History 1 and 2 or American Lit 1 and 2). For complete HIST and LIT sequence options, see the Bulletin.

2. Students who choose a HIST sequence other than HIST 1010 and HIST 1020 should talk to an advisor about CORE SOC SCI choices.

3. If a HIST sequence is chosen, this course must be a CORE HUMANITIES.