# Microbiology Option: Pre-Medical Track

## Freshman Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHMY 141 - College Chemistry I</td>
<td>4</td>
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<tr>
<td>BIOB 170IN - Principles of Biological Diversity or BIOH 185 - Integrated Physiology I</td>
<td>4</td>
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<tr>
<td>STAT 216Q - Introduction to Statistics</td>
<td>3</td>
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<td>US CORE Class</td>
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<td>Elective</td>
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<td>CHMY 143 - College Chemistry II</td>
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<tr>
<td>BIOB 260 - Cellular and Molecular Biology or BIOB 160 - Principles of Living Systems</td>
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<tr>
<td>WRIT 101W - College Writing I</td>
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**Year Total:** 15 - 14-15

## Sophomore Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Fall</th>
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<th>Spring</th>
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<tbody>
<tr>
<td>BIOM 360 - General Microbiology</td>
<td>5</td>
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<tr>
<td>CHMY 321 - Organic Chemistry I</td>
<td>4</td>
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<tr>
<td>BIOH 201 - Human Anatomy and Physiology I</td>
<td>5</td>
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<tr>
<td>Core Course</td>
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<tr>
<td>CHMY 323 - Organic Chemistry II</td>
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<tr>
<td>BIOH 211 - Human Anatomy and Physiology II</td>
<td>4</td>
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<tr>
<td>M 161Q - Survey of Calculus</td>
<td>4</td>
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<td>Core Course</td>
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**Year Total:** 17 - 18

## Junior Year

<table>
<thead>
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<th>Fall</th>
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<th>Spring</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOB 375 - General Genetics or BIOH 320 - Biomedical Genetics</td>
<td>3</td>
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<tr>
<td>BCH 380 - Biochemistry or BCH 441 and BCH 442</td>
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<td>PHSX 205 - College Physics I</td>
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<tr>
<td>BIOB 410 - Immunology</td>
<td>3</td>
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<tr>
<td>PHSX 207 - College Physics II</td>
<td>4</td>
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<td>Core Course</td>
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<tr>
<td>Core Course</td>
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<tr>
<td>Recommended Electives</td>
<td>5-7</td>
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**Year Total:** 15 - 15-17

## Senior Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOM 450 - Microbial Physiology</td>
<td>3</td>
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<tr>
<td>BIOM 494 - Seminar/Workshop</td>
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<tr>
<td>R CORE</td>
<td>3</td>
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<tr>
<td>Recommended Electives</td>
<td>5-7</td>
<td></td>
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<tr>
<td>BIOM 494 - Seminar/Workshop</td>
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<tr>
<td>BIOM 400 - Medical Microbiology or BIOM 431 - Medical Bacteriology</td>
<td>3</td>
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<tr>
<td>BIOM 410 - Microbial Genetics</td>
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**Recommended Electives:**
- BIOM 405 - Host-Associated Microbiomes
- BIOM 430 - Applied and Environmental Microbiology
- Recommended Electives: 3

**Year Total:** 12-14 - 13

**Total Program Credits:** 120-124

## Recommended Electives (you need 13 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOM 363 - Eukaryotic Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 425 - Toxicology: Science of Poisons (S)</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 435 - Virology (F)</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 432 - Med Bacteriology Lab (S)</td>
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<tr>
<td>BIOM 441 - Eukaryotic Pathogens (S)</td>
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<tr>
<td>BIOM 405 - Hematology (F)</td>
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<tr>
<td>BIOM 490R - Undergraduate Research (F,S)</td>
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## Electives: Other (One of the following can be substituted for a Microbiology Elective)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOM 313 - Neurophysiology (F)</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 323 - Human Developmental Biology (S)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 420 - Evolution (S)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 425 - Adv Cell &amp; Molecular Biology (S)</td>
<td>3</td>
</tr>
<tr>
<td>EMEC 424 - Cellular Mechanotransduction (F)</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 303 - Global Disease and Health Disparities</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 395 - Human Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 420 - Molecular Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 445 - Introduction to Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 422 - Genes and Cancer</td>
<td>3</td>
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<tr>
<td>BIOH 476R - Gene Construction</td>
<td>4</td>
</tr>
<tr>
<td>BIOM 491 - Special Topics</td>
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## Other courses to consider that require BIOH 313 as a pre-requisite

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 425 - Sensory Neurophysiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 428R - Molecular basis of neurological diseases</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 430 - Neuroethology</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 435 - Cognitive Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 440 - Neuroscience of Mental Illness</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 444 - Modeling Brain Disorders</td>
<td>3</td>
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<tr>
<td>BIOH 455 - Molecular Medicine</td>
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</tbody>
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**Recommended University Core & Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI 101IS - Introduction to Sociology (ES)</td>
<td>3</td>
</tr>
<tr>
<td>PSYX 100IS - Intro to Psychology (F,Su)</td>
<td>4</td>
</tr>
</tbody>
</table>

A minimum of 120 credits is required for graduation; 42 of those credits must be in courses numbered 300 and above.