**Microbiology Option: Environmental Microbiology Track**

**Freshman Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOB 160 - Principles of Living Systems</td>
<td>4</td>
</tr>
<tr>
<td>CHMY 141 - College Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHMY 143 - College Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>Math requirements</td>
<td>6-7</td>
</tr>
</tbody>
</table>

For General Plan:  

- M 165Q - Calculus for Technology I  
- or M 171Q - Calculus I  
- M 166Q - Calculus for Technology II  
- or M 172Q - Calculus II  

For other Plans:  

- M 161Q - Survey of Calculus  
- & BIOB 318 - Biometry  

University Core and Electives: 11-12  

Year Total: 30

**Sophomore Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHMY 321 - Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHMY 323 - Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>BIOM 360 - General Microbiology</td>
<td>5</td>
</tr>
</tbody>
</table>

Choose one of the following sequences: 0-10  

For General Plan  

- PHSX 205 - College Physics I  
- or PHSX 220 - Physics I with Calculus  
- PHSX 207 - College Physics II  
- or PHSX 222 - Physics II with Calculus  

For Population Biol. & Ecology Plan  

- BIOB 375 - General Genetics  
- BIOE 370 - General Ecology (equiv to 270)  

For Bioinformatics Plan: (TBA)  

For Ag & Bioremediation Plan  

- ENSC 245IN - Soils  

University Core and Electives: 7-17  

Year Total: 30

**Junior Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCH 380 - Biochemistry</td>
<td>5</td>
</tr>
<tr>
<td>BIOM 410 - Microbial Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 430 - Applied and Environmental Microbiology</td>
<td>4</td>
</tr>
</tbody>
</table>

University Core and Electives: 18  

Year Total: 30

**Senior Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOM 450 - Microbial Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 494 - Seminar/Workshop (take twice for two credits total)</td>
<td>2</td>
</tr>
</tbody>
</table>

Choose one of the following sequences: 9-12  

For General Plan  

- BIOM 405 - Host-Associated Microbiomes  
- BIOM 452 - Soil & Environmental Microbiology  
- BIOM 455R - Research Methods in Microbiology  

For Population Biol. & Ecology Plan  

- BIOM 452 - Soil & Environmental Microbiology  
- BIOM 415 - Microbial Diversity, Ecology, and Evolution  
- or BIOM 460 - Infectious Diseases Ecology and Spillover  
- BIOC 420 - Evolution  

For Bioinformatics Plan  

- BCH 441 - Biochemistry of Macromolecules  
- BIOM 455R - Research Methods in Microbiology  
- BCH 444R - Biochemistry & Molecular Biology Methods  
- BIOC 428 - Molecular Evolution  

For Ag & Bioremediation Plan (choose 4 of the following)  

- BIOM 452 - Soil & Environmental Microbiology  
- BIOM 421 - Concepts of Plant Pathology  
- AGSC 450 - Plant Disease Control  
- ENSC 353 - Environmental Biogeochemistry  
- ENSC 460 - Soil Remediation  
- BIOM 423 - Mycology  

University Core and Electives: 12-16  

Year Total: 30  

Total Program Credits: 120

A minimum of 120 credits is required for graduation; 42 of these credits must be in courses numbered 300 and above.
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 Leefrog for a draft with the correct fonts in place.