# Microbiology Option: Environmental Microbiology Track

## Freshman Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>BIOB 160 - Principles of Living Systems</strong></td>
<td>4</td>
</tr>
<tr>
<td>CHMY 141 - College Chemistry I or CHMY 151 - Honors College Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHMY 143 - College Chemistry II or CHMY 153 - Honors College Chemistry II</td>
<td>4</td>
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</tbody>
</table>

**Math requirements**: 6-7 credits

**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 credits

**Year Total**: 30 credits

## Sophomore Year

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<th>Course</th>
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<tr>
<td>CHMY 321 - Organic Chemistry I or CHMY 331 - Honors Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHMY 323 - Organic Chemistry II or CHMY 333 - Honors Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td><strong>BIOM 360 - General Microbiology</strong></td>
<td>5</td>
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Choose one of the following sequences: 0-10 credits

**For General Plan**:
- PHSX 205 - College Physics I or PHSX 220 - Physics I (w/ calculus)
- PHSX 207 - College Physics II or PHSX 222 - Physics II (w/ calculus)

**For Population Biol. & Ecology Plan**:
- BIOB 375 - General Genetics or BIOE 370 - General Ecology (equiv to 270)
- For Bioinformatics Plan: (TBA)

**For Ag & Bioremediation Plan**
- ENSC 245IN - Soils

**University Core and Electives**: 7-17 credits

**Year Total**: 30 credits

## Junior Year

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<th>Course</th>
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<tbody>
<tr>
<td><strong>BCH 380 - Biochemistry</strong> or <strong>BIOM 441 and BCH 442</strong></td>
<td>5</td>
</tr>
<tr>
<td><strong>BIOM 410 - Microbial Genetics</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>BIOM 430 - Applied and Environmental Microbiology</strong></td>
<td>4</td>
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</tbody>
</table>

**University Core and Electives**: 15 credits

**Year Total**: 27 credits

## Senior Year

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td><strong>BIOM 450 - Microbial Physiology</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>BIOM 494 - Seminar/Workshop (take twice for two credits)</strong></td>
<td>1</td>
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Choose one of the following sequences: 9-18 credits

**For General Plan**
- BIOM 452 - Soil & Environmental Microbiology or BIOM 455R - Research Mthds in Microbiology
- BIOM 420 - Evolution

**For Bioinformatics Plan**
- BCH 441 - Biochemistry of Macromolecules
- BIOM 455R - Research Mthds in Microbiology
- BCH 444R - Biochemistry & Molecular Biology Methods
- BCH 452 - Molecular Evolution

**For Ag & Bioremediation Plan**
- BIOM 452 - Soil & Environmental Microbiology
- BIOM 420 - Evolution
- BIOM 455R - Research Mthds in Microbiology
- AGSC 450 - Plant Disease Control
- ENSC 353 - Environmental Biogeochemistry
- ENSC 460 - Soil Remediation
- ENSC 452 - Mycology

**University Core and Electives**: 7-16 credits

**Year Total**: 30 credits

**Total Program Credits**: 117 credits

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 Leepfrog for a draft with the correct fonts in place.