Specialization in Ecology & Conservation Biology

Biology Requirements

- A grade of “C” or higher is required for all biology and non-biology elective courses contributing to the major.
- At least three courses must be at the 300-500 level.
- A course may fulfill more than one requirement. Example: BI 303 simultaneously fulfills a lab/field requirement, a 300-500 level course & the EBE requirement. However, the course may only count as four credits.
- A course cannot fulfill a breadth elective and a Ecology & Conservation Biology elective simultaneously.

Introductory Biology
Both courses are required

☐ CAS BI 107 Biology I
☐ CAS BI 108 Biology II

Required Core Courses
All three courses are required

☐ CAS BI 206 Genetics
☐ or CAS BI 216 Intensive Genetics
☐ CAS BI 303 Evolutionary Ecology
☐ CAS BI 448 Biodiversity & Conservation Biology

Breadth Requirements
Choose at least one course from each disciplinary area

- Cell & Molecular Biology (CM)
  Satisfied by required core courses

- Physiology or Neurobiology (PN)
  ☐ CAS BI 315 Systems Physiology
  ☐ CAS BI 325 Principles Of Neuroscience
  ☐ CAS NE 203 Principles Of Neuroscience With Lab

- Ecology/Behavior/Evolution Biology (EBE)
  Satisfied by required core courses
  ◆ Course will also count toward the three-lab requirement.

ECB Electives  Choose six

| CAS BI 225 Introduction to Behavioral Biology | Fill in your choices |
| CAS BI 260 Marine Biology | I |
| CAS BI 302 Vertebrate Zoology | IV |
| CAS BI 306 Biology Of Global Change | II |
| CAS BI 307 Biogeography | V |
| CAS BI 309 Evolution | III |
| CAS BI 407 Animal Behavior | VI |
| CAS BI 411 Microbiome: Our Intimate Relationship with Microorganisms | |
| CAS BI 414 Ornithology | |
| CAS BI 415 Biology Of Animals | |
| CAS BI 423 Marine Biogeochemistry | |
| CAS BI 443 Terrestrial Biogeochemistry | |
| CAS BI 475 Urban Ecology | |
| CAS BI 486 Biological Design for Sustainable Development | |
| CAS BI 502 Topics in the Theory of Biology Networks | |
| CAS BI 503 Symbiosis | |
| CAS BI 504 Advanced Evolution | |
| CAS BI 506 Phenotypic Plasticity | |
| CAS BI 508 Behavioral Ecology | |
| CAS BI 512 Mammalian Ecology | |
| CAS BI 513 Genetics Lab | |
| CAS BI 515 Population Genetics | |
| CAS BI 519 Theoretical Evolutionary Ecology | |
| CAS BI 530 Forest Ecology | |
| CAS BI 542 Neuroethology | |
| CAS BI 543 Global Ecology | |

◆ Course will also count toward the three-lab requirement.

Optional Programs  Advance application is required

Independent Research
- A maximum of 8 credits (2 courses) from this list may be counted as advanced electives.
- A maximum of 4 credits (1 course) can apply towards the lab requirement.

☐ BI 391/392
☐ BI 401/402
☐ BI 491/492

Tropical Ecology Program (TEP)
All TEP courses count towards Biology electives
TEP fulfills the 3-lab/field course requirement

☐ BI 438 Tropical Montane Ecology
☐ BI 440 Tropical Coastal Ecology
☐ BI 439 Tropical Rainforest Ecology
☐ BI 441 Studies In Tropical Ecology

Marine Semester (MS)  Choose one course each block
All MS courses may count towards ECB electives
MS courses count as lab/field courses

| I | II |
| III | IV |

For more information about the ECB specialization, please see the undergraduate bulletin.
http://www.bu.edu/academics/cas/programs/biology/ba-ecology-conservation/
## Related Requirements

### Math & Computer Science Requirements
- 2 semesters | A grade of “C” or higher is required for all math and computer science courses
- Choose an option

<table>
<thead>
<tr>
<th>Option A</th>
<th>Choose ANY two math courses (calculus and/or statistics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculus</td>
<td>MA 121/122, MA 123/124, MA 123/122</td>
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<tr>
<td>Statistics</td>
<td>MA 115/116, MA 213/214, MA 213/115</td>
</tr>
<tr>
<td>Other</td>
<td>MA 196, MA 127,* or MA 129*</td>
</tr>
</tbody>
</table>

★ MA 127 or MA 129 can be used to satisfy both math requirements

<table>
<thead>
<tr>
<th>Option B</th>
<th>One semester of calculus or statistics and one semester of computer science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science</td>
<td>CS 105, CS 108, CS 111</td>
</tr>
</tbody>
</table>

Fill in your choices

| I | II |

### Chemistry Requirements
- 3 semesters | A grade of “C-” or higher is required for all chemistry courses

<table>
<thead>
<tr>
<th>Option A</th>
<th>General Biology</th>
<th>3 Semesters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose one 100-level General Chemistry sequence</td>
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<tr>
<td>Choose one 200-level Organic Chemistry course</td>
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</table>

**General Chemistry**

<table>
<thead>
<tr>
<th>Sequence I</th>
<th>Sequence II</th>
<th>Sequence III</th>
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</thead>
<tbody>
<tr>
<td>CH 101</td>
<td>CH 109</td>
<td>CH 111</td>
</tr>
<tr>
<td>CH 102</td>
<td>CH 110</td>
<td>CH 112</td>
</tr>
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</table>

**Organic Chemistry**

<table>
<thead>
<tr>
<th>Sequence I</th>
<th>Sequence II</th>
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</thead>
<tbody>
<tr>
<td>CH 203</td>
<td>CH 211</td>
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</table>

<table>
<thead>
<tr>
<th>Option B</th>
<th>Pre-Med</th>
<th>4 Semesters</th>
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<tbody>
<tr>
<td>Choose one General Chemistry sequence</td>
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<td></td>
</tr>
<tr>
<td>Choose one Organic Chemistry sequence</td>
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<tr>
<td>Choose one Biochemistry option</td>
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</table>

**General Chemistry**

<table>
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<tr>
<th>Sequence I</th>
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<td>CH 112</td>
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**Organic Chemistry**

<table>
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<tr>
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<tbody>
<tr>
<td>CH 203</td>
<td>CH 211</td>
</tr>
<tr>
<td>CH 204</td>
<td>CH 212</td>
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<tr>
<td>(or 214)</td>
<td>(or 214)</td>
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**Biochemistry**

<table>
<thead>
<tr>
<th>Option I</th>
<th>Option II</th>
<th>Option III</th>
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<tbody>
<tr>
<td>BI/CH 421</td>
<td>BI/CH 421</td>
<td>CH 273</td>
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<tr>
<td>BI/CH 422</td>
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### Physics Requirements
- 2 semesters | A grade of “C” or higher is required for all physics courses
- Choose a sequence

<table>
<thead>
<tr>
<th>Sequence I</th>
<th>Sequence II</th>
<th>Sequence III</th>
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</thead>
<tbody>
<tr>
<td>PY 105</td>
<td>PY 211</td>
<td>or</td>
</tr>
<tr>
<td>PY 106</td>
<td>PY 212*</td>
<td>or</td>
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</table>

*MA 225 is recommended for PY 212

### CAS Requirements

**Four semesters of the same language:**

**Language:**

| I | II | III | IV |

**Writing:**

| WR 100 | WR 150 |

### Proposed Course of Study

#### Freshmen Year

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<tr>
<th>Fall</th>
<th>Spring</th>
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<td>Summer I</td>
<td>Summer II</td>
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#### Sophomore Year

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<td>Summer II</td>
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#### Junior Year

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<td>Summer I</td>
<td>Summer II</td>
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#### Senior Year

<table>
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<tr>
<th>Fall</th>
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<td>Summer I</td>
<td>Summer II</td>
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SIDE II