### BIOLOGICAL SCIENCES (M.S.)

#### Requirements

##### Course Requirements

**Core Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISC 7501</td>
<td>Population &amp; Community Biology</td>
<td>4</td>
</tr>
<tr>
<td>BISC 7502</td>
<td>Eukaryotic Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BISC 7503</td>
<td>Community and Ecosystem Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BISC 6734</td>
<td>Cell Biology of Eukaryotes</td>
<td>4</td>
</tr>
</tbody>
</table>

**Non-Core Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISC 6525</td>
<td>Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>BISC 7801</td>
<td>Methods in Cell and Molecular Biology</td>
<td>1</td>
</tr>
<tr>
<td>BISC 8999</td>
<td>Independent Study (graded on a letter scale)</td>
<td>2</td>
</tr>
<tr>
<td>BISC 8801</td>
<td>Biological Colloquium I (taken twice)</td>
<td>0</td>
</tr>
</tbody>
</table>

**Concentration-Specific Requirements**

3 to 4

- **Cell & Molecular Biology Concentration**
  - BISC 7804 Techniques in Molecular Biology

- **Ecology & Systematics Concentration**
  - BISC 6535 Ecological Methods
  - One Additional Elective Credit

**Electives/Research Tutorials**

9

- BISC 6999 Research for M.S. in Biological Sciences (independent research, graded pass/fail)
- BISC 8999 Independent Study (graded on a letter scale)

**Comprehensive Exam**

- BISC 0936 Master's Comprehensive Examination-Biology

**Total Credits**

34-35

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1. Note:
   - For M.S. students, only one grade of "C" may count towards the Core requirements.
   - BISC 7501 Population & Community Biology is the prerequisite for BISC 7503 Community and Ecosystem Ecology.
   - BISC 7502 Eukaryotic Molecular Biology is the prerequisite for BISC 6734 Cell Biology of Eukaryotes.

2. A grade of "B" or higher is required in Biostatistics for the course to fulfill the GSAS Language Requirement.

3. See "Electives/Research Tutorials" for courses that can count towards this additional required credit.

4. If students who complete 6 credits of BISC 6999 Research for M.S. in Biological Sciences opt to write and defend a thesis, they must register for BISC 0900 M.S. Thesis Defense in the semester of their thesis defense. The writing and defense of an M.S. thesis is optional.

5. Any course with the subject code BISC, numbered 5000-8998 (not otherwise applied to other requirements) may fulfill this requirement.

6. Please note:
   - For students in the Ecology & Systematics concentration, BISC 7501 Population & Community Biology and BISC 7503 Community and Ecosystem Ecology are considered concentration-specific core course subject to testing in the comprehensive exam. For students in the Cell & Molecular concentration, these courses are considered breadth core courses, and are not subject to testing in the comprehensive exam.
   - For students in the Cell & Molecular concentration, BISC 7502 Eukaryotic Molecular Biology and BISC 6734 Cell Biology of Eukaryotes are considered concentration-specific core course subject to testing in the comprehensive exam. For students in the Ecology & Systematics concentration, these courses are considered breadth core courses, and are not subject to testing in the comprehensive exam.

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### Degree Requirements

1. A minimum of 34 (Ecology & Systematics concentration) and 35 (Cell & Molecular concentration) course credits including at least 2 credits of research tutorial. For the M.S. degree with thesis, credits must include a minimum of 6 M.S. research credits, submission of a thesis document approved by the thesis committee, and an oral defense of the thesis is also required. All research tutorial credits and M.S. tutorial credits earned during years 1 and 2 count as course credits. It is not unusual for students to take more than 35 credits to complete their degree.

2. Reading knowledge of a foreign language (a computer language or statistics may be substituted for a foreign language).

3. Acceptable performance on the M.S. comprehensive examination (BISC 0936), which is achieved by a score of 70% or higher (grade of Pass).

4. Maintenance of a 3.0 GPA.