# BIOLOGICAL SCIENCES (M.S.)

## Requirements

### Course 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>
<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>

### Core Requirements

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.

### Concentration-Specific Requirements

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

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

### Electives/Research Tutorials

- BISC 6999 | Research for M.S. in Biological Sciences (6-credit thesis, 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. Please 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. For the 6 credits of BISC 6999 Research for M.S. in Biological Sciences to apply towards the M.S. degree, students must earn all passing grades in BISC 6999 Research for M.S. in Biological Sciences, submit a thesis document that is approved by the thesis committee, and successfully defend their thesis (passing grade in BISC 0900 M.S. Thesis Defense). Students who do not receive approval of their thesis document or fail their thesis defense must retake 6 credits of electives.

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.