### Biology Major Courses

11 Courses; Minimum 19 credits from SU

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
</tr>
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<tbody>
<tr>
<td>BIO50-121</td>
<td>Investigation into Living Systems</td>
</tr>
<tr>
<td>BIO50-123</td>
<td>Living Systems</td>
</tr>
<tr>
<td>BIO50-131</td>
<td>Investigation in Genetics</td>
</tr>
<tr>
<td>BIO50-133</td>
<td>Molecular &amp; Population Genetics</td>
</tr>
<tr>
<td>BIO50-222</td>
<td>Methods in Ecology/Evolutionary Biology</td>
</tr>
<tr>
<td>BIO50-232</td>
<td>Methods in Cellular/Molecular Biology</td>
</tr>
<tr>
<td>BIO50-97X</td>
<td>Research in Biology (3 total credits reqd)</td>
</tr>
<tr>
<td>BIO50-991</td>
<td>Biology Capstone Seminar</td>
</tr>
<tr>
<td>BIO50-994</td>
<td>Biology Capstone Seminar</td>
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</tbody>
</table>

**Biology Capstone Seminar**

*Select one of the two following options:

- BIO50-97X Research in Biology (3 total credits reqd)
- BIO50-991 Biology Capstone Seminar

**Required Supporting Courses:**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE51-101</td>
<td>Chemical Methods and Techniques Lab I</td>
</tr>
<tr>
<td>CHE51-103</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHE51-201</td>
<td>Chemical Methods and Techniques Lab II</td>
</tr>
<tr>
<td>CHE51-203</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHE51-311</td>
<td>Organic Chemistry I Lab</td>
</tr>
<tr>
<td>CHE51-314</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>MAT52-114</td>
<td>Introduction to Statistics</td>
</tr>
</tbody>
</table>

*MAT52-114 and one Chemistry course may be used to satisfy E&B requirements

**Take four 300+ level Biology courses (two of four must have labs)**

Select one advanced cellular/molecular course from the following:

- BIO50-404 Cancer Biology (no lab)
- BIO50-464 Molecular Biology (lab)
- BIO50-484 Microbiology (lab)
- BIO50-494 Biology of Reproduction (no lab)
- BIO50-514 Cellular Physiology (lab)
- BIO50-534 Fundamentals of Immunology (no lab)
- CHE51-604 Principles of Biochemistry (no lab)*
- CHE51-624 General Biochemistry II (no lab)*

*Must add separate lab course to make it a course w/ lab option.

Select one advanced ecology/evolution course from the following:

- BIO50-314 Genetics (lab)
- BIO50-334 Evolutionary Biology (no lab)
- BIO50-374 Human Genetics and Evolution (no lab)
- BIO50-384 Conservation Biology (no lab)
- BIO50-434 Ecology (lab)
- BIO50-444 Invertebrate Ecology (lab)
- BIO50-474 Genetics, Genomics and Medicine (lab)

Select two additional Biology courses (4 credits each) at 300-level or higher:

- BIO50-XXX
- BIO50-XXX

*Anatomy & Physiology I & II cannot be used to satisfy any Biology requirement.
## Environmental Studies Major Courses

8 Courses; 19 credits must be from SU

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Grade</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV49-104</td>
<td>Introduction to Environmental Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENV49-204</td>
<td>Environmental GIS (Geographic Info Systems)</td>
<td></td>
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<tr>
<td>ENV49-364</td>
<td>U.S. Environmental Policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENV49-964</td>
<td>Capstone in Environmental Studies</td>
<td></td>
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</tr>
</tbody>
</table>

Select one course in the Environmental Humanities:

<table>
<thead>
<tr>
<th>Art History:</th>
<th>Grade</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARH71-254 Landscape &amp; Environment in Chinese Art</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communication Studies:</th>
<th>Grade</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM75-464 Environmental Communication</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Select two courses from the following Natural Sciences:

### Biology:
- BIO50-123/121 Living Systems/Invest. Living Systems
- BIO50-194 Science of Chocolate
- BIO50-384 Conservation Biology
- BIO50-434 Ecology*

### Chemistry:
- CHE51-014 Chemistry Appreciation
- CHE51-024 Chemistry of the Environment
- CHE51-034 Chemistry of Food
- CHE51-103/101 General Chemistry I & Lab
- CHE51-504 Instrumentation in Environmental and Bio Analysis*
- CHE51-852 Advanced Lab in Analytical Chemistry

### Physics:
- PHY53-034 Introduction to Earth Science
- PHY53-044 Introduction to Climate Science
- PHY53-354 Energy and the Environment

*CHE51-504 and BIO50-434 have prerequisites which do NOT count towards the ENV major

Select one course on Environmental Justice:

### Anthropology:
- ANT35-254 Latinx Spiritualities
- ANT35-334 Global Environmental Justice

### Religion:
- REL19-334 Apocalypse
- REL19-344 Animals and Religion
- REL19-374 Sacred Space and Environment

**Courses cannot double count for both Environmental Justice and Environmental Humanities

Required Supporting Course:

| MAT52-114 | Introduction to Statistics |

*MAT52-114 may be used to satisfy an E&B requirement.
General Education Requirements
At least 30 total credits required; minimum 3 credits per requirement.

General Education - Part I

Take one of the following first semester seminars:
- UST05-014 First Year Seminar
- UST05-214 Advanced Entry Seminar

Foreign Language (three semesters of the same language)

Social Justice Course (may double count with any requirement):

Two Fitness/Recreational Activity courses (must be different topics):

General Education - Part II: Exploration & Breadth (6 total courses)

Neither BIO50-XXX nor ENV49-XXX courses may be used to satisfy E&B requirements. Additionally, any other course contributing to Biology or Environmental Studies which is used to satisfy a major requirement cannot be used in the E&B section.

Select one course from each of the following areas:

Humanities:

Natural Sciences:

Social Sciences:

Fine Arts:

Select one additional course from TWO of the following areas: Humanities, Natural Science, Social Science, and Fine Arts. Neither course may come from the department (3 digit prefix) used above. EX: If you took PSY33-104 Principles of Psychology as a social science, you may not select another PSY33-XXX course to apply in this section.

*Public Speaking, College Writing, and Creative Writing courses may not count in E&B.

University Graduation Requirements:

Minimum of 127 credits:
Cumulative GPA > 2.0
GPA > 2.0 for Major and/or Areas of Concentration
All grades C- or higher in major/minor/core?
At least 64 credits completed at Southwestern
No more than 56 credits of any 5 digit prefix
Major credits completed (min 30 required)
60% of Major courses completed at Southwestern (19cr/19cr)
Gen Ed has minimum of 30 credits

Minor (optional):
Minimum 18 credits
Minimum of 12 credits taken at Southwestern
Minimum 2.0 minor courses CGPA

Other:
Degree Audit Completed (Due one year before grad date)
Grad Application Submitted (Due start of final semester)
Approved to be part time in last semester?