# Ecology, Evolution, Biodiversity, and Conservation Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 363</td>
<td>Principles of Conservation Biology</td>
<td>4</td>
</tr>
<tr>
<td>LA/NR 218</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
<td>3</td>
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<tr>
<td>or GEOG 318</td>
<td>Applications in GIS</td>
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### Biodiversity Courses
Select three from the following:

- BIO 321   Mammalogy
- BIO 322   Ichthyology
- BIO 323   Ornithology
- BIO 324   Herpetology
- BIO 335   General Entomology
- BIO 336   Invertebrate Zoology
- BOT 313   Taxonomy of Vascular Plants
- BOT 433   Field Botany: California Plant Diversity
- MRCO 224  General Microbiology I
- MSCI 437  Marine Botany

### Ecology and Evolution Courses
Select one from the following:

- BIO 415   Biogeography
- BIO 442   Behavioral Ecology
- BIO 444   Population Ecology
- BIO 445   Community Ecology
- BIO 446   Ecosystem Ecology
- BOT 326   Plant Ecology
- MRCO 436  Microbial Ecology
- MSCI 300  Marine Ecology

### Conservation Courses
Select one from the following:

- BIO 427   Wildlife Management
- MSCI 428  Marine Conservation and Policy
- MSCI 437  Marine Botany
- NR 416    Environmental Impact Analysis and Management

### Approved Electives
Select from the following:

- ASCI 239  Principles of Rangeland Management
- BIO 300   Research Experience for Undergraduates
- BIO 321   Mammalogy
- BIO 322   Ichthyology
- BIO 323   Ornithology
- BIO 324   Herpetology
- BIO 327   Wildlife Ecology
- BIO 329   Vertebrate Field Zoology
- BIO 330   Extended Field Biology Activity
- BIO 335   General Entomology
- BIO 336   Invertebrate Zoology
- BIO 400   Special Problems for Advanced Undergraduates
- BIO 415   Biogeography
- BIO 419   Analytical Methods in Ecology
- BIO 427   Wildlife Management
- BIO 429   Parasitology
- BIO 434   Environmental Physiology
- BIO 435   Plant Physiology
- BIO 442   Behavioral Ecology
- BIO 444   Population Ecology
- BIO 445   Community Ecology
- BIO 446   Ecosystem Ecology
- BIO 450   Undergraduate Laboratory Assistanship
- BIO 461   Senior Project - Research Proposal
- BIO 462   Senior Project Research Experience
- BIO 463   Honors Research
- BOT 311   Plants, People and Civilization
- BOT 323   Plant Pathology
- BOT 326   Plant Ecology
- GEOG 440  Advanced-Applications in GIS
- MSCI 224  General Microbiology II
- MRCO 436  Microbial Ecology
- MSCI 300  Marine Ecology
- MSCI 324  Marine Mammals, Birds and Reptiles
- MSCI 428  Marine Conservation and Policy
- MSCI 437  Marine Botany
- MSCI 439  Fisheries Science and Resource Management
- NR 141    Introduction to Forest Ecosystem Management
- NR 142    Environmental Management
- NR 404    Environmental Law
- NR 416    Environmental Impact Analysis and Management
- NR 418    Applied GIS
- NR 425    Applied Resource Analysis and Assessment
- SCM 302/ ENGR 322  The Learn By Doing Lab Teaching Practicum
- STAT 313  Applied Experimental Design and Regression Models
- STAT 324  Applied Regression Analysis
- STAT 334  Applied Linear Models
- STAT 330  Statistical Computing with SAS
- STAT 331  Statistical Computing with R
- STAT 416  Statistical Analysis of Time Series
- STAT 419  Applied Multivariate Statistics
Excess units will be applied to subsequent concentration electives.

Students seeking certification (i.e. as an Associate Wildlife Biologist from the Wildlife Society) should see their faculty advisor for guidance.

Consultation with advisor is recommended prior to selecting approved electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.

Courses taken to meet a major or support requirement cannot be double-counted as an elective.

Maximum of 6 units may be applied toward Approved Electives: BIO 300, BIO 400, BIO 450.

If BIO 461 or BIO 462 is used to meet the Senior Project Requirement, it cannot also be counted as an Elective.

Maximum of 2 units may be applied toward Approved Electives from SCM 302/ENGR 322.