# ECOLOGY, EVOLUTION, BIODIVERSITY, AND CONSERVATION CONCENTRATION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</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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</tbody>
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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
- MCR 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
- MCR 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 439 Fisheries Science and Resource Management
- 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 Assistantship
- 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
- GEG 440 Advanced Applications in GIS
- MSCI 224 General Microbiology I
- MCR 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 or 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
1 Excess units will be applied to subsequent concentration electives.
2 Students seeking certification (i.e. as an Associate Wildlife Biologist from the Wildlife Society) should see their faculty advisor for guidance.
3 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.
4 Courses taken to meet a major or support requirement cannot be double-counted as an elective.
5 Maximum of 6 units may be applied toward Approved Electives:
BIO 300, BIO 400, BIO 450.
6 If BIO 461 or BIO 462 is used to meet the Senior Project Requirement, it cannot also be counted as an Elective.
7 Maximum of 2 units may be applied toward Approved Electives from SCM 302/ENGR 322.