ECOLOGY, EVOLUTION, BIODIVERSITY, AND CONSERVATION CONCENTRATION

BIO 363 Principles of Conservation Biology 4
LA/NR 218 Introduction to Geographic Information Systems (GIS) 1 or GEOG 218 Applications in GIS 3

Biodiversity Courses 1, 2
Select three from the following: 12
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
MCRO 224 General Microbiology I
MSCI 437 Marine Botany

Ecology and Evolution Courses 1
Select one from the following: 4
BIO 415 Biogeography
BIO 442 Behavioral Ecology
BIO 444 Population Ecology
BIO 445 Community Ecology
BIO 446 Ecosystem Ecology
BIO 450 Undergraduate Laboratory Assistanship 5
BIO 461 Senior Project - Research Proposal 6
BIO 462 Senior Project Research Experience 6
BIO 463 Honors Research
BOT 311 Plants, People and Civilization
BOT 323 Plant Pathology
BOT 326 Plant Ecology
GEOG 441 Advanced Applications in Geospatial Technologies
MCRO 224 General Microbiology I
MCRO 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 314 Environmental Life-Cycle Analysis
NR 404 Environmental Law
NR 416 Environmental Impact Analysis and Management
NR 418 Applied GIS
NR 425 Applied Resource Analysis and Assessment
NR 445 Systems Thinking in Environmental Management
SCM 302/ENGR 322 The Learn By Doing Lab Teaching Practicum 7
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

Conservation Courses 1, 2
Select one from the following: 4
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: 3, 4
Select from the following: 16
At least 8 units must be upper-division.
ASCI 239 Principles of Rangeland Management
BIO 300 Research Experience for Undergraduates 5
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 5
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 5
BIO 461 Senior Project - Research Proposal 6
BIO 462 Senior Project Research Experience 6
BIO 463 Honors Research
BOT 311 Plants, People and Civilization
BOT 323 Plant Pathology
BOT 326 Plant Ecology
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STAT 313 Applied Experimental Design and Regression Models
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or STAT 334 Applied Linear Models
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>STAT 331</td>
<td>Statistical Computing with R</td>
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<tr>
<td>STAT 416</td>
<td>Statistical Analysis of Time Series</td>
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<tr>
<td>STAT 419</td>
<td>Applied Multivariate Statistics</td>
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<tr>
<td>STAT 421</td>
<td>Survey Sampling and Methodology</td>
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Total units: 43

1. Excess units will be applied to subsequent concentration electives.
2. Students seeking certification (e.g., 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. If a course is taken to meet a Major or Support requirement, it cannot be double-counted in the concentration.
5. Maximum of 6 units may be applied toward Approved Electives: BIO 200, BIO 300, BIO 400, BIO 450, BIO 485, BIO 495, MSCI 401.
6. If BIO 461 or BIO 462 is used to meet the senior project requirement, it cannot be double-counted as an Approved Elective.
7. Maximum of 2 units may be applied toward Approved Electives from SCM 302/ENGR 322.