ECOLOGY CONCENTRATION

Ecology Levels

- Select from the following: 12
  - BIO 442 Behavioral Ecology
  - BIO 444 Population Ecology
  - BIO 445 Community Ecology
  - BIO 446 Ecosystem Ecology

Systems and Applications

- Select from the following: 12
  - BIO 327 Wildlife Ecology
  - BIO 401 Principles of Conservation Biology
  - BIO 415 Biogeography
  - BOT 326 Plant Ecology
  - MSCI 328 Marine Ecology

Biodiversity Courses

- Select from the following: 4
  - BIO 321 Mammalogy
  - BIO 322 Ichthyology
  - BIO 323 Ornithology
  - BIO 324 Herpetology
  - BIO 329 Vertebrate Field Zoology
  - BIO 335 General Entomology
  - BIO 336 Invertebrate Zoology
  - BIO 429 Parasitology
  - BOT 313 Taxonomy of Vascular Plants
  - MSCI 224 General Microbiology I
  - MSCI 328 Marine Ecology
  - MSCI 339 Fisheries Science and Resource Management
  - MSCI 440 Communicating Ocean Sciences to Informal Audiences

Ecology Electives

- Select from the following: 7
  - 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 361 Principles of Animal Physiology
  - BIO 400 Special Problems for Advanced Undergraduates
  - BIO 401 Principles of Conservation Biology
  - BIO 415 Biogeography
  - BIO 419 Analytical Methods in Ecology
  - BIO/NR/SS 421 Wetlands
  - BIO 427 Wildlife Management
  - BIO 429 Parasitology
  - BIO 434 Environmental Physiology
  - BIO 435 Plant Physiology
  - BIO/ CHEM 441 Bioinformatics Applications
  - BIO 442 Behavioral Ecology

Approved Electives

- Select from the following: 8
  - AG/EDES/ENGR/GEOG/ISLA/SCM/UNIV 350 The Global Environment
  - 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 361 Principles of Animal Physiology
  - BIO 400 Special Problems for Advanced Undergraduates
  - BIO 401 Principles of Conservation Biology
  - BIO 415 Biogeography
  - BIO 419 Analytical Methods in Ecology
  - BIO/NR/SS 421 Wetlands
  - BIO 427 Wildlife Management
  - BIO 429 Parasitology
  - BIO 434 Environmental Physiology
  - BIO 435 Plant Physiology
  - BIO/ CHEM 441 Bioinformatics Applications
  - BIO 442 Behavioral Ecology
  - BIO 444 Population Ecology
  - BIO 445 Community Ecology
  - BIO 446 Ecosystem Ecology
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BIO 461</td>
<td>Senior Project - Research Proposal</td>
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<tr>
<td>BIO 462</td>
<td>Senior Project - Research</td>
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<td>BIO 463</td>
<td>Honors Research</td>
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<td>BIO 472</td>
<td>Current Topics in Biological Research</td>
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<td>BIO/CHEM 475</td>
<td>Molecular Biology Laboratory</td>
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<td>BOT 311</td>
<td>Plants, People and Civilization</td>
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<td>BOT 313</td>
<td>Taxonomy of Vascular Plants</td>
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<td>BOT 326</td>
<td>Plant Ecology</td>
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<td>BOT 433</td>
<td>Field Botany: California Plant Diversity</td>
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<td>ENGR 322/SCM 302</td>
<td>The Learn By Doing Lab Teaching Practicum</td>
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<td>ERSC/GEOG 250</td>
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<td>GEOG 440</td>
<td>Advanced-Applications in GIS</td>
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<td>or GEOG 318</td>
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<td>Introductory Soil Science</td>
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<td>STAT 313</td>
<td>Applied Experimental Design and Regression Models</td>
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<td>STAT 419</td>
<td>Applied Multivariate Statistics</td>
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Total units 43

1. Excess units will be applied to subsequent concentration electives.
2. 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.
3. Courses taken to meet a major or support requirement cannot be double-counted as an elective.
4. If BIO 461 or BIO 462 is used to meet the Senior Project Requirement, it cannot also be counted as an Elective.
5. Maximum of 6 units may be applied toward Approved Electives from "by arrangement" courses: BIO 400, BIO 461, BIO 462, BIO 463, BIO 472, ENGR 322/SCM 302.
6. Recommended for students interested in health science careers.