GENERAL CURRICULUM IN BIOLOGY

The General Curriculum in Biology is followed by default if no concentration is declared.

**Biodiversity Courses**

Select from the following:

- BIO 321 Mammalogy
- BIO 322 Ichthyology
- 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
- MCRO 224 General Microbiology I
- MCRO 402 General Virology
- MSCI 324 Marine Mammals, Birds and Reptiles

**Upper Division Electives**

Select from any 300-400 level BIO/BOT/MCRO/MSCI, except BIO 330, BIO 400, BIO 450, BIO 461, BIO 462, BIO 463, BIO 470, BIO 471, BIO 472, ENGR 322/SCM 302. Select a minimum of 11 units of 400-level courses.

**Additional Electives**

Select from any BIO/BOT/MCRO/MSCI open to BIO majors (including courses cross-listed with other departments), or course from any other concentration in BIO, with the following restrictions:

- Maximum of 7 units of Lower Division.
- Maximum of 6 units of the following:
  - BIO 330 Extended Field Biology Activity
  - BIO 400 Special Problems for Advanced Undergraduates
  - BIO 450 Undergraduate Laboratory Assistantship
  - BIO 461 Senior Project - Research Proposal
  - BIO 462 Senior Project - Research
  - BIO 463 Honors Research
  - BIO 470 Selected Advanced Topics
  - BIO 471 Selected Advanced Laboratory
  - BIO 472 Current Topics in Biological Research
  - ENGR 322/SCM 302 The Learn By Doing Lab Teaching Practicum

Maximum of 15 units of the following:

- AG/EDES/ENGR/ISLA/SCM/UNIV 350 The Global Environment
- ASCI 329 Principles of Range Management
- ASCI 351 Reproductive Physiology
- ASCI 403 Applied Biotechnology in Animal Science
- ASCI 405 Domestic Livestock Endocrinology

- ASCI 406 Applied Animal Embryology and Assisted Reproduction
- ASCI 438 Systemic Animal Physiology
- ASCI 503 Advanced Molecular Techniques in Animal Science
- CHEM 217 Organic Chemistry II
- CHEM 218 Organic Chemistry III
- CHEM 220 Organic Chemistry Laboratory For Life Sciences II
- CHEM 223 Organic Chemistry Laboratory For Life Sciences III
- CHEM 313 Survey of Biochemistry and Biotechnology or CHEM 371 Biochemical Principles
- CHEM 331 Quantitative Analysis
- CHEM 341 Environmental Chemistry: Water Pollution
- CHEM 372 Metabolism
- CHEM 377 Chemistry of Drugs and Poisons
- CHEM 474 Protein Techniques Laboratory
- CHEM 528 Nutritional Biochemistry
- ENGR 322 The Learn By Doing Lab Teaching Practicum
- ERSC/GEOG 250 Physical Geography
- ES/WGS 350 Gender, Race, Culture, Science and Technology
- FSN 310 Maternal and Child Nutrition
- FSN 429 Clinical Nutrition I
- KINE 406 Neuroanatomy
- KINE 445 Electrocardiography
- KINE 446 Echocardiography
- LA/NR 218 Applications in GIS
- 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
- PHIL 339 Biomedical Ethics or PHIL 341 Professional Ethics
- or PHIL 451 Ethics in the Sciences
- PSC 201 Physical Oceanography
- PSY 340 Biopsychology
- SS 121 Introductory Soil Science
- SS 321 Soil Morphology
- SS 322 Soil Plant Relationships
- SS 422 Soil Ecology
- STAT 313 Applied Experimental Design and Regression Models
- STAT 324 Applied Regression Analysis or STAT 334 Applied Linear Models
General Curriculum in Biology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>STAT 330</td>
<td>Statistical Computing with SAS</td>
</tr>
<tr>
<td>STAT 416</td>
<td>Statistical Analysis of Time Series</td>
</tr>
<tr>
<td>STAT 419</td>
<td>Applied Multivariate Statistics</td>
</tr>
<tr>
<td>STAT 421</td>
<td>Survey Sampling and Methodology</td>
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</tbody>
</table>

Total units 43

1. Excess units will be applied to Electives in the General Curriculum in Biology.
2. Consultation with advisor is recommended prior to selecting electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.
3. If any of these courses is taken to meet a major or support requirement in the degree, it cannot be double-counted as an elective.
4. Selecting a GE Area F course that double counts as an elective may cause an upper-division unit shortage. Take care to ensure that you have selected enough 300 and 400-level courses to meet the University Upper-Division Requirement (60 units).
5. If BIO 461 or BIO 462 is used to meet the Senior Project Requirement, it cannot also be counted as an Elective.