

ECOLOGY, EVOLUTION, BIODIVERSITY, AND CONSERVATION CONCENTRATION

BIO 363 Principles of Conservation Biology 4

LA/NR 218 Introduction to Geographic Information Systems (GIS)¹ 3

or GEOG 218 Applications in GIS

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 Courses¹

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 447 Spatial Ecology

BOT 326 Plant Ecology

MCRO 436 Microbial Ecology

MSCI 300 Marine Ecology

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 Undergraduates⁵

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 Undergraduates⁵

BIO 415 Biogeography

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 Assistantship⁵

BIO 461 Senior Project - Research Proposal⁶

BIO 462 Senior Project Research Experience⁶

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 Practicum⁷

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

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STAT 331	Statistical Computing with R
STAT 416	Statistical Analysis of Time Series
STAT 419	Applied Multivariate Statistics
STAT 421	Survey Sampling and Methodology
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.