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 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 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 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 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 [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	

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.