



## Concentrations (select one)

### Anatomy and Physiology Concentration

BIO 432 Vertebrate/Human Anat & Phys I .....	5
BIO 433 Vertebrate/Human Anat & Phys II .....	5
BIO 452 Cell Biology .....	4
CHEM 371 or CHEM 313 .....	5
<sup>1</sup> Advisor approved electives .....	20
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### <sup>2</sup>Biology Teaching Concentration

BIO 432 Vertebrate/Human Anat & Phys I .....	5
BIO 433 Vertebrate/Human Anat & Phys II .....	5
BIO 452 Cell Biology .....	4
BIO/PSC 424 Organizing/Teaching Sci.....	4
MCRO 320 Emerging Infectious Diseases.....	3
SCM 300 Early Field Exp, Sci/Math (CR/NC) .....	4
SCM 451 Ethics in the Sciences.....	3
<sup>1</sup> Advisor approved electives .....	11
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### Ecology Concentration

<i>Ecology of the Individual</i> .....	4-5
BIO 434, 435; ZOO 437	
<i>Population Ecology</i> .....	3-4
BIO 401, 439, 444	
<i>Community Ecology</i> .....	4-5
BIO 325, 328; BOT 326, 433; MCRO 436	
<i>Global Ecology</i> .....	4
BIO 415; GEOG 250, 333; UNIV 350	
<i>Methodology (select 3 courses)</i> .....	10-12
BIO/CHEM 375; BIO 419, 443; LA/NR 318; STAT 313, 419	
<sup>1</sup> Advisor approved electives .....	9-14
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### Field and Wildlife Biology Concentration

BOT 313 Taxonomy of Vascular Plants .....	4
BOT 433 Field Botany .....	4
ZOO 321 Mammalogy .....	4
ZOO 323 Ornithology .....	4
ZOO 341 Herpetology .....	4
Emphasis Area (select one).....	19
<i>Field Biology Emphasis</i>	
ZOO 335 General Entomology (4)	
ZOO 437 Animal Behavior (4)	
BIO 439 or ZOO 322 (4)	
<sup>1</sup> Advisor approved electives (7)	
<sup>3</sup> <i>Wildlife Biology Emphasis</i>	
BIO 327 Wildlife Biology Methods (5)	
BIO 427 Wildlife Management (4)	
BIO 444 Population Ecology (3) or	
BIO 401 Conservation Biology (4)	
<sup>1</sup> Advisor approved electives (6-7)	
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### General Biology Concentration

BIO 452 Cell Biology.....	4
CHEM 313 Survey of Biochem & Biotech .....	5
<i>Anatomy/Physiology</i> .....	4
BIO 432, 433, 434, 435; BOT 335; MCRO 424; ZOO 422	
<i>Botany</i> .....	4
BOT 313, 323, 335, 433, 437	
<i>Microbiology</i> .....	3-5
BIO 426; MCRO 224, 225, 320, 342, 402, 421, 433, 436; ZOO 428	
<i>Zoology</i> .....	4
BIO 328; ZOO 321, 322, 323, 329, 335, 336, 341, 425	
<sup>1</sup> Advisor approved electives .....	13-15
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### Marine Biology & Fisheries Concentration

BIO 328 Marine Biology .....	5
BIO/CHEM 375 Molecular Biology Lab .....	3
BOT 437 Phycology .....	4
STAT 313 Appl Exper Dsgn & Regress Mod .....	4
ZOO 322 Ichthyology.....	4
ZOO 336 Invertebrate Zoology .....	4
<sup>1</sup> Advisor approved electives .....	15
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### <sup>4</sup>Molecular and Cellular Biology Concentration

BIO/CHEM 375 Molecular Biology Laboratory ....	3
BIO 452 Cell Biology.....	4
CHEM 317 Organic Chemistry II .....	5
CHEM 371 Biochemistry .....	5
CHEM 372 Metabolism.....	4
CHEM 474 or BIO/CHEM 476.....	2
Choose 8 units from the following .....	8
BIO/ZOO 405 (4), 426 (4); BIO/CHEM 441 (4); BIO/CHEM 476 (2) or CHEM 474 (2); BOT 450 (2); MCRO 402 (4), 433 (3); SCM 201 (CR/NC) (1)	
<sup>1</sup> Advisor approved electives .....	8
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### Systematics & Biodiversity Concentration

BIO 443 Molecular Ecology & Systematics .....	4
BIO/CHEM 375 Molecular Biology Lab .....	3
BIO 415 Biogeography.....	4
BIO/CHEM 441 Bioinformatics Applications.....	4
STAT 313 Appl Exper Dsgn & Regress Mod .....	4
STAT 419 Appl Multivariate Stats.....	4
<sup>1</sup> Advisor approved biological diversity electives....	16
(see list under Major Courses)	
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<sup>1</sup> Guidelines are available for advisor approved electives in most concentrations. See your faculty advisor for assistance.

<sup>2</sup> To meet credentialing requirements, it is recommended that students take KINE 250 to fulfill GE D4, and SCM 330 to fulfill GE Area F.

<sup>3</sup> Students seeking Wildlife Biologist Certification should see faculty advisor for assistance.

<sup>4</sup> The Biotechnology Minor is not open to Biological Sciences students with a Molecular and Cellular Biology concentration.