

BIOLOGY MAJOR

WILDLIFE AND ENVIRONMENTAL BIOLOGY CONCENTRATION

DOMAIN GENERAL EDUCATION (10 courses Required):

Domain II B is satisfied through completion of the Biology major, leaving ten courses to be completed to satisfy the remaining general education subdomains through courses taken outside the major department. Only courses designated (Gen. Ed. Domain) after the course title will meet general education requirements.

Common Core: A. ENWR 110 Composition 2 _____
 B. MATH XXX _____

Domain I: A. Creative Arts _____
 B. Humanities _____
 C. Language _____

Domain II: A. Analysis, Modeling, Problem-Solving _____
 B. Sciences (two; one must be a lab science) X _____

Domain III: A. Perspectives on the Past _____
 B. Perspectives on Contemp. World _____
 C. Global Comp., Eth. Reas., Human Div. _____

BIOLOGY MAJOR AND RELATED COURSES:

Required Major Related Core Courses (12):

BIOL 125 The Biology Experience _____
 BIOL 135/135L Foundations of Biological Science with Lab _____
 BIOL 208/208L Genetics with Lab _____
 BIOL 230 Professional Communication in Biology _____
 BIOL 262/262L Molecular Biology with Lab _____
 BIOL 402 Processes of Organic Evolution _____
 CHEM 107/107L Principles of Chemistry with Lab _____
 CHEM 108/108L Principles of Chemistry and Quantitative Analysis with Lab _____
 CHEM 207/207L Organic Chemistry I with Lab _____
 MATH 180 Precalculus (CCM)* _____
 MATH 208 Biostatistics **OR** _____
 ENVS 202 Data Analysis for Scientists _____

**Student proficient at the precalculus level should enroll in MATH219 Calculus I to satisfy the Gen. Ed. Domain Common Core Math Requirement.*

Biology Major Capstone:

BIOL460 Research Experience in Biology** _____

***An original research project is required of all Biology Majors. Prior to enrollment in BIOL469 Research Experience in Biology, the student should meet with their academic advisor and with other Biology faculty to tailor the research project to the student's interests and career goals.*

Additional Biology electives, Wildlife and Environmental Biology Concentration:

Requirements for the concentration in wildlife and environmental biology include courses in wildlife biology or environmental science, both animal and plant systems, ecology, and policy/communication. Upon graduation, students will have completed the majority of curriculum requirements for certification as a Wildlife Biologist by the Wildlife Society*. Graduates of this program are prepared for graduate studies or careers as wildlife biologists, wildlife managers, conservation biologists, environmental consultants, park rangers, and zookeepers.

Students must take an additional seven (7) electives:

BIOL 344/344L Animal Physiological Ecology with Lab _____
 BIOL 248/248L Principles of Ecology with Lab _____
 BIOL 251/251L Vascular Plant Taxonomy with Lab _____
 BIOL 335/335L Principles of Wildlife Biology with Lab _____

One (1) Course from Group A (attached)

One (1) Course from Group B (attached)

One (1) Course from Group D (attached)

**Note: Students interested in certification by The Wildlife Society should meet with the program advisor when choosing electives*

Other courses that are not required but would be useful for students in this concentration include the following:

CHEM 300/300L Principles of Biochemistry with Lab _____
 EASC 118 Oceanography _____
 GEOG 216 Introduction to Geographical Information Systems (GIS) _____
 GEOG 235 Environmental Law and Policy _____
 GEOG 240 Municipal Land Use _____
 GEOG 375 Resource Management _____
 PHYS 201/201L Physics for Earth and Life Scientists with Lab _____
 POSC 329 Public Policy Analysis _____

FREE ELECTIVES (Three (3) for Wildlife & Environmental Biology Concentration):

***For students who plan to pursue an advanced degree in Biology, the following courses are strongly recommended:**

CHEM 300/300L Principles of Biochemistry with Lab _____
MATH219 Calculus I _____
PHYS 201/201L Physics for Earth and Life Scientists with Lab *or both*
PHYS211/211L Physics I with Lab **AND** _____
PHYS 212/212L Physics II with lab _____

Group A: Cellular and Molecular Biology Electives

BIOL 228/228L Microbiology with Lab
BIOL 260/260L Cellular Biology with Lab
BIOL 356 Biology of Cancer
BIOL 381 Theories of Infectious Diseases
BIOL 400 Trends in Biotechnology
BIOL 426 Human Immunity
BIOL 432 Vertebrate Development
CHEM 300/300L Principles of Biochemistry with Lab **or**
CHEM 301/301L Biochemistry I with Lab

Group B: Organismal Diversity Electives

BIOL 203 Plants and Society*
BIOL 212/212L Wildlife Specimen Preparation Techniques
BIOL 232/232L Invertebrate Zoology with Lab
BIOL 251/251L Vascular Plant Taxonomy with Lab
BIOL 320/320L Animal Behavior with Lab
BIOL 323 Biology and Conservation of Crocodiles
BIOL 236/236L Ornithology with Lab

** This course may not be used as a required plant course.*

Group C: Physiology Electives

BIOL 344/344L Animal Physiological Ecology* with Lab
BIOL 235/235L Principles of Human Physiology* with Lab
BIOL 241/241L Human Anatomy and Physiology I* with Lab
BIOL 242/242L Human Anatomy and Physiology II with Lab
BIOL 255/255L Plant Physiology with Lab
BIOL 269 Sex, Brains, and Hormones
HLTH 302 Exercise Physiology
NEUR 225 Biopsychology
NEUR 380 Neuropharmacology

** Only one of these courses may be taken in order to receive biology credit.*

Group D: Ecological and Evolutionary Biology Electives

BIOL 233/233L Comparative Vertebrate Anatomy with Lab
BIOL 248/248L Principles of Ecology with Lab
BIOL 291 Principles of Tropical Ecology and Conservation: Field Study
BIOL 321/321L Limnology with Lab
BIOL 335/335L Principles of Wildlife Biology with Lab
BIOL 341/341L Marine Biology with Lab
BIOL 393 Wildlife Management and Conservation Topics

Group E: Advanced Biology Electives

BIOL 490 Independent Study in Biology
BIOL 495 Internship in Biology