ZOOL 625: Principles of Animal Physiology and Animal Physiology Laboratory

ZOOL 555: Introduction to Marine Biology

ZOOL 728: Research Methods in Animal Behavior

ZOOL 733: Behavioral Ecology (C)

ZOOL 759: Genes and Behavior (C)

ZOOL 777: Neuroscience (C)

Shools Courses:

MFB 600: Coastal Habitat Field Research Methods

MFB 605: Introduction to Applied Science Communication

MFB 606: Marine Parasitology and Disease

MFB 610: Field Ornithology

MFB 630: Evolution and Marine Diversity

MFB 635: Marine Mammal Biology

MFB 630: Biodiversity and Biology of Marine Invertebrates

MFB 674: Ecology and Marine Environment

MFB 702: Sustainable Marine Fisheries

MFB 714: Field Animal Behavior

MFB 730: Underwater Research

MFB 741: Sharks: Biology and Conservation

MFB 751: Research in Marine Biology

MFB 754: Anatomy and Function of Marine Vertebrae

Study Abroad Courses:

NR 660: Ecology and Biogeography of New Zealand

NR 661: Restoration Ecology and Ecosystem Management in New Zealand
Capstone Experience
As part of the University of New Hampshire's Discovery Program requirements, all students must complete a capstone experience during their senior year (after earning at least 90 credits). The capstone experience for students majoring in ZOOLOGY BS consists of BOTH (1) an approved individual experience AND (2) the successful completion of the BIOL 780 Capstone Companion Course. Students will not be approved for graduation until capstone certification has been granted.

1) The individual experience
The individual experience may be satisfied through various forms of experiential learning (e.g., Honors thesis, mentored research project, internship) or a course denoted with a “(C)” in the courses listed above. The individual experience must fulfill at least one of the University's capstone criteria:

- synthesizes and applies disciplinary knowledge and skills
- fosters reflection on undergraduate learning and experience
- demonstrates emerging professional competencies
- applies, analyzes, and/or interprets research, data, or artistic expression
- explores areas of interest based on the integration of the prior learning

Before beginning any capstone individual experience, students MUST SUBMIT A COMPLETED CAPSTONE APPROVAL FORM to their Program Coordinator.

Students can obtain this form on the Department’s Capstone page or from their Program Coordinator. Here they will describe their proposed individual experience and how it fulfills at least one of the University's capstone criteria listed above. If the student is selecting a “C” course for their individual experience, they should obtain the course syllabus from the instructor for information about the course’s content and learning objectives.

2) Enrollment in BIOL 780 Capstone Companion Course
Students will also be required to enroll in BIOL 780 Capstone Companion Course (1 cr.) during the semester of their individual experience. BIOL 780 is offered every Fall and Spring semester.

- If the individual experience is a two-semester thesis, BIOL 780 should be taken during the second semester.
- If the individual experience occurs during the summer (e.g., internship), BIOL 780 should be taken during the Fall semester that immediately follows.
- Note: Because BIOL 780 is not offered during the summer, students cannot complete their individual experience during the summer and graduate during that same August. Summer experiences could only be used as individual capstone experiences if completed the summer before the student’s senior year.

Student Learning Outcomes
Students demonstrate that they understand basic principles of Zoology.

- Understand the biodiversity and ecological roles of selected animal taxa.
- Demonstrate understanding of animal physiology and structure at the cellular and organismal levels.
- Describe and apply key principles and mechanisms of evolution and genetics.
- Comprehend the relationship between organisms and their environments.

Students demonstrate that they can undertake scientifically valid methods of inquiry.

- Demonstrate proficiency in searching, reading, and understanding scientific literature.

Students demonstrate that they can think critically and analytically.

- Analyze and present data using appropriate quantitative and graphical tools.

Students demonstrate that they can communicate effectively.

- Develop effective written and oral communication skills for conveying scientific information effectively to a wide audience.

Students practice science responsibly and ethically, and acknowledge the influence of cultural and historical biases in the sciences.