

ZOOLOGY

BOT 6726C Principles of Systematic Biology 4 Credits

Grading Scheme: Letter Grade

Theory of biological classification, taxonomy, nomenclature, and phylogenetics. Discussion of issues in systematic biology including species concepts and reticulate evolution. Laboratory experience in phylogenetic methods, including parsimony, maximum likelihood, Bayesian inference, divergence time estimation, and ancestral state reconstruction.

PCB 5307C Limnology 4 Credits

Grading Scheme: Letter Grade

Biological, chemical, and physical dynamics of inland waters.

Prerequisite: PCB 4044C, CHM 2046.

PCB 5415C Behavioral Ecology 4 Credits

Grading Scheme: Letter Grade

Theoretical and empirical bases for behavioral adaptations.

Prerequisite: ZOO 3513C, 4472C, PCB 4044C, 4674, or consent of instructor.

PCB 5615 Molecular Evolution and Systematics 4 Credits

Grading Scheme: Letter Grade

Patterns and processes of change at the molecular level in populations, species, and higher taxonomic groups, and their systematic implications.

Prerequisite: PCB 3063, graduate standing, or consent of instructor.

PCB 6049 Seminar in Ecology 1-3 Credits, Max 9 Credits

Grading Scheme: Letter Grade

Rotating seminar: various topics in ecology.

PCB 6377C Physiological Ecology of Vertebrates 4 Credits

Grading Scheme: Letter Grade

Physiological mechanisms that influence distribution and ecological relations, water conservation, and energy exchange in vertebrates.

Prerequisite: course in physiology.

PCB 6447C Community Ecology 4 Credits

Grading Scheme: Letter Grade

The evolutionary ecology of communities; conceptual and quantitative approaches to community structure; statistics independent projects.

Prerequisite: PCB 4044C or equivalent, and consent of instructor.

PCB 6695 Seminar in Evolutionary Biology 1 Credit, Max 5 Credits

Grading Scheme: Letter Grade

Current thinking. New topic each time offered. Recently published book or symposium proceedings on newly emerging research theme. Supplementary material drawn from evolutionary biology journals. Directed readings.

Prerequisite: PCB 4674.

ZOO 5115C Vertebrate Paleontology 3 Credits

Grading Scheme: Letter Grade

Evolutionary history of major vertebrate groups, emphasizing the principles of prehistoric investigations.

Prerequisite: ZOO 3713C.

ZOO 5486C Mammalogy 4 Credits

Grading Scheme: Letter Grade

Study of the ecology, natural history, behavior, and evolutionary history of mammals.

Prerequisite: ZOO 2203C.

ZOO 6005 Integrative Principles of Zoology I 4 Credits

Grading Scheme: Letter Grade

Integrative approach to fundamental principles of ecology, evolution, and comparative biology.

ZOO 6308 Dynamic Optimization Modeling in Behavioral and Evolutionary Ecology 3 Credits

Grading Scheme: Letter Grade

Powerful and simple techniques for formalizing hypotheses. Appropriate to address questions of relative fitness of alternative choices or strategies. Instruction in computer programming and dynamic modeling.

ZOO 6406 Biology of Sea Turtles 3 Credits

Grading Scheme: Letter Grade

All aspects of biology of sea turtles and how their biology affects their conservation.

ZOO 6456C Ichthyology 4 Credits

Grading Scheme: Letter Grade

Ichthyology

Prerequisite: ZOO 2203C.

ZOO 6542 Nutritional Ecology 3 Credits

Grading Scheme: Letter Grade

Interactions of nutrition and ecology, emphasizing how digestive processes regulate animal productivity and plant/animal interactions.

ZOO 6905 Individual Studies 1-8 Credits, Max 12 Credits

Grading Scheme: Letter Grade

Individual Studies

ZOO 6910 Supervised Research 1-5 Credits, Max 5 Credits

Grading Scheme: S/U

Supervised Research

ZOO 6920 Zoology Colloquium 1 Credit, Max 9 Credits

Grading Scheme: S/U

Readings and oral presentations on general topics in zoology. Discussions with eminent scientists in the discipline.

ZOO 6927 Special Topics in Zoology 1-4 Credits, Max 15 Credits

Grading Scheme: Letter Grade

Special Topics in Zoology

ZOO 6931 Seminar in Marine Turtle Biology 1-2 Credits, Max 5 Credits

Grading Scheme: Letter Grade

Advanced topics in biology and conservation of marine turtles.

Prerequisite: consent of instructor.

ZOO 6939 Seminar in Animal Behavior 1-3 Credits, Max 9 Credits

Grading Scheme: Letter Grade

Advanced topics in animal behavior.

Prerequisite: graduate standing or consent of instructor.

ZOO 6971 Research for Master's Thesis 1-15 Credits

Grading Scheme: S/U

Research for Master's Thesis

ZOO 7979 Advanced Research 1-12 Credits

Grading Scheme: S/U

Research for doctoral students before admission to candidacy. Designed for students with a master's degree in the field of study or for students who have been admitted for a doctoral program. Not appropriate for students who have been admitted to candidacy.

ZOO 7980 Research for Doctoral Dissertation 1-15 Credits

Grading Scheme: S/U

Research for Doctoral Dissertation