

ZOOLOGY (ZOO & ZOOL)

241. Human Physiology. Credit 4 hours. Prerequisite: GBIO 151 and BIOL 152 or equivalent. A general study of functions in organ systems of the human. Three hours of lecture and two hours of laboratory per week. Persons majoring in Biology may not use this course to fulfill their major requirements; however, it may be used to fulfill an elective requirement.

242. Principles of Human Biology. Credit 4 hours. Prerequisite: GBIO 151 and BIOL 152 or equivalent. Principles of Human Biology has been primarily designed for students pursuing careers with curricula that require a single semester of human biology such as Kinesiology. The major areas of subject concentration are the muscular, cardiovascular, respiratory, nervous, and sensory systems. Biology majors may not use this course to fulfill their major requirements. However, it may be used to fulfill an elective requirement and in calculating cumulative and major averages. Three hours of lecture and two hours of laboratory per week.

250. Human Anatomy and Physiology Lecture I. Credit 3 hours. Prerequisites: GBIO 151 and BIOL 152 and registration in or prior credit for Zoology 252 or permission of the Department Head. Topics covered include: anatomical terminology and the structure and function of molecules, cells, tissues, and the integumentary, skeletal, muscular, nervous, and endocrine systems. Three hours of lecture per week. This course can not be used as a concentration elective for Biology majors; however, it may be used as a general elective.

251. Human Anatomy and Physiology Lecture II. Credit 3 hours. Prerequisites: ZOO 250 and registration in or prior credit for Zoology 253 or permission of the Department Head. Topics covered include: the structure and function of the cardiovascular, digestive, reproductive, respiratory, lymphatic, urinary, and excretory systems, energy & metabolism, and water & ion homeostasis. Three hours of lecture per week. This course can not be used as a concentration elective for Biology majors; however, it may be used as a general elective.

252. Anatomy and Physiology Laboratory I. Credit 1 hour. Prerequisites: Registration in or prior credit for Zoology 250. A series of laboratory exercises designed to illustrate the course material in Zoology 250. Two hours of laboratory per week. Persons majoring in Biology may not use this course to fulfill their major requirements; however, it may be used to fulfill an elective requirement.

253. Anatomy and Physiology Laboratory II. Credit 1 hour. Prerequisites: Registration in or prior credit for Zoology 251. A series of laboratory exercises designed to illustrate the course material in Zoology 251. Two hours of laboratory per week. Persons majoring in Biology may not use this course to fulfill their major requirements; however, it may be used to fulfill an elective requirement.

301. Invertebrate Zoology. Credit 4 hours. Prerequisite: GBIO 153 and BIOL 154 or equivalent. A general study of the principal forms of invertebrate animals. Two hours of lecture and four hours of laboratory per week.

302. Comparative Anatomy of the Vertebrates. Credit 4 hours. Prerequisite: GBIO 153 and BIOL 154 or equivalent. A comparative study of the anatomy of representative vertebrate animals. Three hours of lecture and three hours of laboratory per week.

331. Embryology. Credit 4 hours. Prerequisites: Zoology 301 and GBIO 200. A comparative study of the embryology of invertebrates and vertebrates. Three hours of lecture and three hours of laboratory per week.

332. Animal Histology. Credit 4 hours. Prerequisite: GBIO 153 and BIOL 154 or equivalent and Junior standing or consent of the Department Head. A study of normal animal microscopic anatomy; correlations with cellular and tissue function are given. Two hours of lecture and four hours of laboratory per week.

352. Field Zoology. Credit 4 hours. Prerequisite: GBIO 153 and BIOL 154 or equivalent and Junior standing or consent of the Department Head. A laboratory course designed to acquaint the student with the methods of collecting and identifying the common species of vertebrate animals found in Louisiana. One hour of lecture and six hours of laboratory per week.

392. Animal Physiology. Credit 4 hours. Prerequisite: GBIO 200 or consent of the Department Head. A comparative approach to study the fundamental mechanisms which underlie the basic physiological processes in animals. Laboratory will involve research experiments emphasizing hands-on instrumentation and computer usage, data analysis and scientific written reports. Three hours of lecture and three hours of laboratory per week.

409/509. General Entomology. Credit 4 hours. Prerequisite: GBIO 153 and BIOL 154 or equivalent and Junior standing or consent of the Department Head. A general study of the earth's most diverse group of animals, the insects. Lecture will emphasize insect diversity, physiology, structure, and life history. Laboratory will focus on collection and identification of insects. Creation of an insect collection is a major component of the laboratory. Three hours of lecture and three hours of laboratory per week.

428/528. Waterfowl Management. Credit 3 hours. Prerequisite: GBIO 153 and BIOL 154 or equivalent and Junior standing or consent of the Department Head. A study of the principles, practices, and problems of waterfowl management, with an introduction to current research methods and pertinent literature. A two-hour laboratory stresses habitat evaluation with trips to waterfowl refuges. Waterfowl identification and aquatic plant identification are other laboratory objectives. Two hours of lecture and two hours of laboratory per week.

438/538. Mammalogy. Credit 4 hours. Prerequisites: Zoology 302 and 352 or consent of the Department Head. A study of the life history, distribution, systematics, evolution, and adaptations of mammals. Two hours of lecture and four hours of laboratory per week.

453/553. Ecological Parasitology. Credit 4 hours. Prerequisite: GBIO 153, BIOL 154, and Junior standing or permission of the Department Head. Survey of the major parasitic taxa, including microparasites (protists) and macroparasites (helminthes). Ecological aspects of host-parasite relationships, parasite life histories, and methods of transmission. Topics in the evolutionary ecology of parasites will focus on origins and evolution of complex life cycles, host specificity, and strategies of host exploitation. Patterns and processes of parasite aggregation, population dynamics, and community structure are analyzed. Four hours of lecture per week.

455/555. Medical Parasitology. Credit 4 hours. Prerequisite: GBIO 153, BIOL 154, and Junior standing or permission of the Department Head. A study of human parasites of significant medical importance. Two hours of lecture and four hours of laboratory per week.

456/556. Ichthyology. Credit 4 hours. Prerequisite: GBIO 153 and BIOL 154 or equivalent and Junior standing or permission of the Department Head. A study of the classification, structure, and life history of fishes, both freshwater and marine. Two hours of lecture and one four-hour laboratory per week.

457/557. Invertebrate Ecology. Credit 4 hours. Prerequisite: Zoology 301 or equivalent or permission of the Department Head. Field and laboratory study of ecological relationships of invertebrate animals. Observation and collection of invertebrates in terrestrial, marine, estuarine, and freshwater environments. Identification and preservation of specimens in the laboratory. Two Saturday field trips. Two hours of lecture and four hours of laboratory per week.

458/558. Fisheries Ecology and Management. Credit 4 hours. Prerequisites: GBIO 151, GBIO 153, and Junior standing or permission of Department Head. An evaluation of the theory and practice of fisheries ecology and management emphasizing management techniques and principles, including sampling and assessment methods, stocking, population and habitat manipulation, and regulations. The laboratory will focus on the use of sampling gears and data analysis. Two hours of lecture and four hours of lab per week.

465/565. Animal Development. Credit 4 hours. Prerequisite: GBIO 200. Credit for or enrollment in GBIO 312 also recommended. A study of the major patterns of animal development and the mechanisms responsible for cell differentiation during development. Three hours of lecture and three hours of lab per week.

470/570. Ornithology. Credit 4 hours. Prerequisites: Zoology 302 and 352 or consent of the Department Head. A study of the taxonomy, life history, distribution, evolution, and adaptations of birds. Two hours of lecture and four hours of laboratory per week.

471/571. Comparative Endocrinology. Credit 4 hours. Prerequisite: ZOO 392 or equivalent or permission of the Department Head. A study of the hormones regulating reproduction, growth, and homeostasis in animals, including humans. Three hours of lecture and three hours of laboratory per week.

475/575. Animal Behavior. Credit 4 hours. Prerequisite: GBIO 200 or permission of Department Head. This course will examine the biological basis of animal behavior, including molecular, cellular, physiological, ecological, and evolutionary aspects of survival and reproduction. Three hours of lecture and three hours of laboratory per week.

483/583. Introduction to Paleontology. Credit 4 hours. Prerequisite: GBIO 153 and BIOL 154 or equivalent and Junior standing or consent of the Department Head. A study of vertebrate evolution from Devonian fishes to man. The course is divided between vertebrate evolution and anthropology. Field experience will be emphasized using and teaching basic techniques and concepts. Three hours of lecture and two hours of laboratory per week.

488/588. Cytology. Credit 3 hours. Prerequisite: GBIO 153, BIOL 154, and Junior standing or permission of the Department Head. A study of cellular anatomy, including the major cell organelles. Three hours of lecture per week.

499/599. Neurobiology. Credit 4 hours. Prerequisite: GBIO 200 or permission of the Department Head. A physiological approach to the study of the nervous system. The laboratory will focus on neurophysiology and neuroanatomy. Three hours of lecture and three hours of laboratory per week.

605. Developmental Biology. Credit 3 hours. A study of the molecular interactions and processes which occur during the developmental phases of organelle, cell, and tissue formation. Three hours of lecture per week.

608. Fisheries Biology. Credit 3 hours. Prerequisite: Zoology 456/556. Research methods in fishery biology; life histories, environmental relations, and fishery management problems. One hour of lecture and four hours of laboratory per week.

611. Advanced Invertebrate Zoology. Credit 4 hours. Prerequisite: Zoology 301 or equivalent. A study of the phylogeny, morphology, and biology of invertebrate animals. Two hours of lecture and four hours of laboratory per week.

630. Herpetology. Credit 4 hours. Prerequisite: Zoology 352 or equivalent. A course dealing with the survival strategy of amphibians and reptiles. Areas of study include evolution, dispersal, and populations of these organisms with emphasis on their role in the various ecosystems. Three hours of lecture and two hours of laboratory per week.

635. Endocrinology. Credit 4 hours. A study of the evolution, pharmacology, physiology, and structure of endocrine glands and hormones. This will include not only the medical implications, but also the role of hormones in the survival strategy of various organisms. Three hours of lecture and four hours of laboratory per week.

645. Environmental Physiology. Credit 4 hrs. A study of physiology in the content of an animal's physical, chemical, and social environment. Multiple levels of organization are considered, from organism to biochemistry. Three hours of lecture and three hours of laboratory per week.