## Zoology (ZOO)

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201. 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.

202. 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. Two hours of lecture and four hours of laboratory per week.

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. Will not meet requirements for Biology or Nursing curricula.

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 pursing 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 overall and major averages. Three hours of lecture and two hours of laboratory per week.

250. Anatomy and Physiology Lecture I. Credit 3 hours. Prerequisites: GBIO 151 and BIOL 152 and registration in or prior credit for Zoology 252 or consent of Department Head. A study of the anatomy and physiology of cells, skin, muscles, nervous system, sensory and endocrine systems. Three hours of lecture per week.

251. Anatomy and Physiology Lecture II. Credit 3 hours. Prerequisites: GBIO 151 and BIOL 152 and registration in or prior credit for Zoology 253. A study of the structure and function of the cardiovascular, digestive, reproductive, respiratory, excretory, sensory, and endocrine systems. Three hours of lecture per week.

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.

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.

309/509. 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 structure, classification, and life history of insects, including a general study of control methods. Two hours of lecture and four hours of laboratory per week.

328/528. 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.

**331.** Elementary Embryology. Credit 4 hours. Prerequisites: Zoology 201 and GBIO 200. A survey of embryology and mechanisms of development in invertebrates, chiefly sea urchin, frog, chicken, and mammals. 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. General Physiology. Credit 4 hours. Prerequisite: GBIO 153 and BIOL 154 or equivalent, Chemistry 265/266 and Junior Standing or consent of the Department Head. A comparative approach to study the fundamental mechanisms which underlie the basic physiological processes. 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.

438/538. Mammalogy. Credit 4 hours. Prerequisites: Zoology 202 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.

454/554. Ecological Parasitology. Credit 4 hours. Prerequisite: 12 hours of biology and Junior standing or consent of the Department Head. Current topics regarding the ecology and evolution of parasites, emphasizing helminth endoparasites. Study of life cycles, means of transmission, and

host-parasite relationships. Field trips and laboratory exercises for collection and examination of hosts from terrestrial, freshwater, and marine ecosystems. Two hours of lecture and four hours of laboratory per week. One weekend field trip.

455/555. Medical Parasitology. Credit 4 hours. Prerequisite: 12 hours of biology and Junior standing or consent 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 consent 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 201 or equivalent or consent of 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.

470/570. Ornithology. Credit 4 hours. Prerequisites: Zoology 202 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.

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: 12 hours of biology and Junior standing or consent of the Department Head. A study of cellular anatomy, including the major cell organelles. Three hours of lecture per week.

605. Developmental Biology. Credit 3 hours. Prerequisite: 12 hours of biology and Chemistry 121 or consent of the Department Head. 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 201 or equivalent. A study of the phylogeny, morphology, and biology of invertebrate animals. Two hours of lecture and four hours of laboratory per week.

624. Experimental Zoology for Teachers. Credit 4 hours. A course designed for secondary and/or elementary school science teachers. Emphasis will be placed on the design of laboratory experiments which are applicable to the elementary and secondary levels. Lecture topics will include experimental design, equipment and subject preparation, procurement and preservation of specimens. Three hours of lecture and two hours of laboratory per week. May not be used as credit toward a major in Biological Sciences.

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.

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