

## 2007-09 Cal Poly Catalog

### Updated Course Descriptions.

See catalog pages as printed for [original descriptions](#).

#### Biological Sciences Department

### ZOO–ZOOLOGY

#### ZOO 231 Essentials of Human Anatomy and Physiology I (5)

See ZOO 331. ZOO 231 accepted in lieu of ZOO 331, but not for upper division credit. Not open for major credit in the Biological Sciences.

#### ZOO 232 Essentials of Human Anatomy and Physiology II (5)

See ZOO 332. ZOO 232 accepted in lieu of ZOO 332, but not for upper division credit. Not open for major credit in the Biological Sciences.

#### ZOO 321 Mammalogy (4)

Ecology, behavior, physiology, functional morphology, and evolution of mammals. Classification and identification of mammals, with emphasis on California species. 2 lectures, 2 laboratories. Prerequisite: BIO 160, BIO 162 and BIO 263 or consent of instructor. [Changed effective Spring 2009.](#)

#### ZOO 322 Ichthyology (4)

Phylogeny, anatomy, functional morphology, physiology, and ecology of marine and freshwater fishes. Special reference to local and economically important species. Laboratory emphasis on taxonomy of California species, especially marine groups. 2 lectures, 2 laboratories. Prerequisite: BIO 162.

#### ZOO 323 Ornithology (4)

Classification and identification of birds, with emphasis on California species. Functional morphology, physiology, ecology, behavior and census methods. Field trips may require meeting in the morning before scheduled lab time. 2 lectures, 2 laboratories. Prerequisite: BIO 160, BIO 162 and BIO 263 or consent of instructor. [Changed effective Spring 2009.](#)

#### ZOO 329 Vertebrate Field Zoology (4)

Identification and natural history of terrestrial vertebrates, with emphasis on field studies and local species. Field trips may require meeting in the morning before scheduled lab time. 2 lectures, 2 laboratories. Prerequisite: BIO 160, BIO 162 and BIO 263. [Changed effective Spring 2009.](#)

#### ZOO 331 Human Anatomy and Physiology I (5)

Structural and functional organization of the skeletal, muscular, nervous, endocrine, and integumentary systems. Includes discussion of molecular, cellular, and organ system levels of organization. Activities emphasize histology, cadaver anatomy, physiology of muscle contraction, nerve impulse initiation and conduction, sensory and motor functions. 4 lectures, 1 laboratory. Prerequisite: BIO 111, BIO 115, or BIO 161; CHEM 111, CHEM 124, or CHEM 127. Not open for major credit in Biological Sciences. [Changes effective Fall 2008.](#)

#### ZOO 332 Human Anatomy and Physiology II (5)

Structural and functional organization of the circulatory, respiratory, digestive, excretory, and reproductive systems. Includes discussion of molecular, cellular, and organ system levels of organization. Activities emphasize histology, cadaver anatomy, and physiological experiments. 4 lectures, 1 laboratory. Prerequisite: BIO 111, BIO 115, or BIO 161; CHEM 111, CHEM 124, or CHEM 127. Not open for major credit in Biological Sciences. [Change effective Fall 2008.](#)

#### ZOO 335 General Entomology (4)

Introduction to the study of insects. Structure, major orders and families of insects, life histories, medical, and economic importance. Insect collection required. 2 lectures, 2 laboratories. Prerequisite: One course in college biology.

#### ZOO 336 Invertebrate Zoology (4)

Invertebrate groups of animals with emphasis on taxonomy, morphology, distribution, and economic importance. 2 lectures, 2 laboratories, and fieldwork. Prerequisite: BIO 160 and BIO 162.

#### ZOO 341 Herpetology (4)

Living and extinct reptiles and amphibians; an adaptive approach to their diversity, biology, and classification. 2 lectures, 2 laboratories. Prerequisite: BIO 160 and BIO 162.

#### ZOO 422 Functional Histology (4)

Functional microscopic anatomy of principal tissues and organs of vertebrates, including humans. Structural studies to determine mechanisms underlying physiological processes and their clinical applications in medicine. 2 lectures, 2 laboratories. Prerequisite: BIO 162.

#### ZOO 423 Fisheries Science and Resource Conservation (4)

Basic approaches in scientific investigation of marine and freshwater fisheries. Includes methodologies and quantitative strategies for study of finfish and invertebrates, user-group conflict issues, regional/global controversies in fisheries, species identification, lab/field protocols, general statistical procedures, and computer simulations. 3 lectures, 1 laboratory. Prerequisite: BIO 162. Recommended: ZOO 322.

#### ZOO 425 Parasitology (4)

External and internal parasites of man and animals. Life history. Parasite-host relationships. Control and recognition of species of clinical importance. 2 lectures, 2 laboratories. Prerequisite: BIO 160 and BIO 161, or MCRO 221, or MCRO 224.

#### ZOO 428 Hematology (4)

Development of blood as a tissue. Composition, function, and mechanisms of formation and destruction of blood components in health and disease. Methods for examination of blood. Suitable for preparing laboratory technologists. 2 lectures, 2 laboratories. Prerequisite: BIO 351 and consent of instructor. Recommended: Biochemistry course.

#### ZOO 436 Comparative Invertebrate Physiology (4)

Comparative study of the functions of organ systems of the invertebrate groups of organisms. Emphasis on strategies utilized in accomplishing the function of the organ systems in adapting to different environmental demands. 2 lectures, 2 laboratories. Prerequisite: ZOO 336 or consent of instructor.

#### ZOO 437 Animal Behavior (4)

Behavioral adaptations of animals to their environment and way of life. Analysis of behavior patterns, use of patterns in clarifying evolutionary, and ecological relationships. 3 lectures, 1 laboratory. Prerequisite: BIO 263 or consent of instructor.

#### ZOO 530 Behavioral Ecology (3)

Function and evolution of behavioral phenomena as they relate to ecological phenomena. Topics include habitat selection, spacing mechanisms, reproductive strategies, feeding strategies, agonistic, parasitic, and altruistic behavior; migration, and comparative social systems. 3 seminars. Prerequisite: Graduate standing in Biological Sciences, BIO 263 or consent of instructor.