BIOLOGY (BIOL)

Courses

BIOL 204. Adv Genetics Laboratory. 4 Credits.
Laboratory experiments to provide experience with modern genetic techniques. Bench work and data analysis emphasized. Prerequisite: BCOR 101.

BIOL 205. Adv Genetics & Proteomics Lab. 4 Credits.
Laboratory experiments to provide experience with modern genetic and proteomics techniques. Bench work and data analysis are emphasized. Prerequisites: BCOR 101, BCOR 103.

BIOL 209. Field Zoology of Arthropods. 0 or 4 Credits.
Collection, identification, and ecology of arthropods. Substantial field collecting. Prerequisite: BCOR 102.

BIOL 210. Comparative Histology. 0 or 4 Credits.
Anatomy of tissues, chiefly vertebrate. Tissue similarities and specializations of organs among the various groups of animals in relation to function. Prerequisite: BCOR 102.

BIOL 212. Comparative Histology. 0 or 4 Credits.
Anatomy of tissues, chiefly vertebrate. Tissue similarities and specializations of organs among the various groups of animals in relation to function. Prerequisite: BCOR 102.

BIOL 217. Mammalogy. 0 or 4 Credits.
Classification, identification, morphology, evolution, and distribution of mammals. Prerequisite: BCOR 102.

BIOL 219. Comp/Func Vertebrate Anatomy. 4 Credits.
Structure, function, and phylogeny, with evolutionary and functional trends of all chordate groups. Prerequisite: Two courses from BCOR 101, BCOR 102, BCOR 103.

BIOL 223. Developmental Biology. 3 Credits.
An analysis of the cellular, subcellular, molecular, and genetic mechanisms that operate during oogenesis and embryogenesis in invertebrate and vertebrate organisms. Prerequisites: BCOR 101, BCOR 103.

BIOL 224. Population Genetics. 0-4 Credits.
Methods of detecting and investigating genetic variation, as well as its causes and consequences. Applications from medicine, forensics, and environmental biology are emphasized. Prerequisite: BCOR 102 or BCOR 102.

BIOL 225. Comparative Physiology. 0 or 4 Credits.
Physiology at the organ, systems, and organismal levels. Capstone course to consolidate biological concepts. Pre/co-requisites: BCOR 101, BCOR 104, BCOR 103.

BIOL 226. Neurodevelopment. 3 Credits.
Current topics in developmental neurobiology through lectures and discussions of primary literature. The course is designed for advanced undergraduate life science majors and graduate students in the biological sciences. Pre/co-requisites: BCOR 101 and BCOR 103.

BIOL 229. Plant-Animal Interactions. 3 Credits.
Ecological and evolutionary interactions among plants and animals. Topics include herbivory, pollination, seed predation, ant-plant interactions, biological control, and anthropogenic effects on plant-animal interactions including the effects of GMOs and global climate change. Prerequisites: BCOR 102.

BIOL 270. Speciation and Phylogeny. 4 Credits.
Contribution of modern research in such fields as genetics, systematics, distribution, and serology to problems of evolutionary change. Prerequisite: BCOR 102.

BIOL 271. Evolution. 3 Credits.
Basic concepts in evolution will be covered, including the causes of evolutionary change, speciation, phylogenetics, and the history of life. Pr/co-requisites: BCOR 102 or permission of the Instructor.

BIOL 276. Behavioral Ecology. 3 Credits.
Adaptive significance of behavior in natural environments. Evolutionary theory applied to behavior and tested with field data. Prerequisite: BCOR 102 or Instructor permission.

BIOL 277. Sociobiology. 3 Credits.
The evolutionary biology of social behavior in animals. Topics include the evolution of sociality, social interactions, and the functional organization of social groups. Prerequisite: BCOR 102.

BIOL 281. Graduate Colloquium. 1 Credit.
Topics of current faculty and graduate student interest presented in a seminar-discussion format. Specific titles for colloquia will be listed in the course schedule.

BIOL 372. Cutting Edge Topics. 2 Credits.
Graduate students will explore cutting edge topics in depth. Students will cross disciplinary lines and learn collaboratively to solve problems. Students will present the outcomes in a talk appropriate for a lay audience. Prerequisite: Graduate standing.

BIOL 380. Special Topics. 0-4 Credits.
Readings with conferences, small seminar groups, or laboratories intended to contribute to the programs of graduate students in phases of zoology for which formal courses are not available. Prerequisite: An undergraduate major in life science.

BIOL 385. Biology Seminar. 0-1 Credits.
Review and discussion of current biological research. Attendance required of Biology graduate students. Pre/co-requisite: Graduate standing and Instructor permission.

BIOL 391. Master’s Thesis Research. 1-10 Credits.
Credit as arranged.
BIOL 491. Doctoral Dissertation Research. 1-10 Credits.

BIOL 496. Advanced Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles.