

# BIOLOGY

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### **BIOL 100      General Biology/Non Major      3 Credits**

Basic biological concepts, interpretation and application of scientific methods, and effects of biological advances on society. Core curriculum science course; cannot be used for credit toward field of concentration in biology.

### **BIOL 105      Introduction to Neuroscience      3 Credits**

An introduction to neuroscience and the impact of neural diseases on society. Same as PSY 105.

### **BIOL 124      Northeastern Nevada Plant      2 Credits**

Study of plant identification, structure, floral adaptations, and plant ecology of native plants in northeastern Nevada.

### **BIOL 190      Intro Cell/Molecular Biology      4 Credits**

Structure and function of cells. Major molecules of life; composition and physiology of cellular organelles; cell metabolism, reproduction, motility, and gene function of both plant and animal cells. Required for biology majors. Concurrent enrollment in a corresponding lab section is required for this course.

### **BIOL 191      Intro Organismal Biology      4 Credits**

The study of the evolution, ecology, and diversity of life, both past and present. Required for biology majors, but will partially satisfy the science requirement for all associate's degrees. Concurrent enrollment in a corresponding lab section is required for this course.

### **BIOL 223      Human Anatomy & Physiology I      4 Credits**

The morphology and physiology of cells, tissues, and the integumentary, skeletal, muscular, and nervous systems in a laboratory and lecture class. Designed for all life science majors but specifically for students in allied health programs. Concurrent enrollment in a corresponding lab section is required for this course.

### **BIOL 224      Anatomy & Physiology II      4 Credits**

A continuation of Biology 223 with consideration of the circulatory, respiratory, digestive, excretory, endocrine, and reproductive systems; increased emphasis on body chemistry. Concurrent enrollment in a corresponding lab section is required for this course.

### **BIOL 251      General Microbiology      4 Credits**

A laboratory and lecture course emphasizing taxonomy, morphology, physiology, infectious diseases, and ecology of microorganisms in addition to skills in aseptic procedures, isolation, and identification. Open to all life science majors and allied health majors.

### **BIOL 299      Special Topics in Biology      1-4 Credits**

Topics of interest emphasizing the natural history of the Great Basin including winter bird watching, hawk watching in the Goshutes, small mammal ecology, and the flowers of the Ruby Mountains. Includes field trips. Unlimited repeatability.

### **BIOL 300      Principles of Genetics      4 Credits**

Study of the basic principles of transmission of traits from one generation to the next. Topics include Mendelian, population, and molecular genetics with an emphasis on gene regulation. Both eukaryotic and prokaryotic systems will be described. Three hours of lecture with three hours of laboratory. It is recommended that student have completed CHEM 241 before enrolling in this course. Concurrent enrollment in a corresponding lab section is required for this course.

### **BIOL 305      Intro Conservation Biology      3 Credits**

Fundamental topics in conservation biology including biodiversity, invasive and endangered species, reserve design, and environmental legislation. Lecture only.

### **BIOL 315      Cell Biology      3 Credits**

Cell structure and function at the molecular level.

### **BIOL 320      Invertebrate Zoology      4 Credits**

The study of animals that lack a dorsal nerve cord (backbone). This course explores the origin, evolution, taxonomy, physiology, and morphology of invertebrate members of the kingdom of Animalia. The laboratory component of this course emphasizes the similarities and differences of animal phyla and requires examination and dissection of preserved specimens. Concurrent enrollment in a corresponding lab section is required for this course.

### **BIOL 331      Plant Taxonomy      3 Credits**

The study of vascular plant identification, naming, and classification, within an evolutionary context. Evolutionary processes and the history of systematics will be discussed. Laboratory experiences will emphasize angiosperm family characteristics, the collection and preservation of plant specimens, and the identification of the northeastern Nevada flora. The course will require two hours of lecture with three hours of laboratory per week.

### **BIOL 341      Principles of Ecology      3 Credits**

The fundamentals of ecology studied at the levels of population, community, and ecosystems.

### **BIOL 394      Lab Ecology/Population Biology      2 Credits**

Research techniques and investigative approaches in field and laboratory studies.

### **BIOL 401      Biology Journal Seminar      1 Credits**

Survey of periodical literature of biology. Oral and written reports by the student will give experience in searching and interpreting literature. May be repeated up to six credits.

### **BIOL 410      Plant Physiology      3 Credits**

A survey of the basic physiologic processes of plants. Topics include photosynthesis, metabolism, nutrition, growth and development, as well as effect of environment on these processes. It is recommended that student have completed CHEM 241 before enrolling in this course.

### **BIOL 415      Evolution      4 Credits**

Pattern and process in the evolution of life on earth.

### **BIOL 432      Herpetology      4 Credits**

Introduction to the ecology, behavior, and evolution of amphibians and non-avian reptiles. Laboratory emphasizes the study of diagnostic characters for major groups of amphibians and reptiles, as well as field studies of species native to the Great Basin region.

### **BIOL 434      Mammalogy      4 Credits**

The study of mammals. This course explores the origin, evolution, taxonomy, morphology, physiology, biogeography, behavior, and ecology of mammals. Laboratory will stress identification and natural history of mammals native to Nevada.

### **BIOL 447      Adv Compare Animal Physiology      3 Credits**

Comparative physiology provides a detailed understanding of the diverse array of physiological systems evolved to allow animals to function in various environments. The comparative approach is used to understand physiological adaptations to various environments and the evolution of physiological systems. It is recommended that student have completed CHEM 241 before enrolling in this course.

### **BIOL 496      Advanced Topics in Modern Biol      1-3 Credits**

Advanced study in a specialized area of biology. Topics are selected and published in the class schedule. May be repeated up to six credits.