

BIOLOGY (BIOL)

BIOL 111. Concepts of Biology

Credits: 3

Corequisite: Concurrent registration in, or previous successful completion of BIOL 111L.

Typically Offered: FASPSU

BIOL111, in conjunction with BIOL 111L, is designed to fulfill the lab science requirement of the student planning a non-science major. Included are discussions on the nature of living things, genetics, DNA, biotechnology, evolution, the diversity of living things, and ecology.

BIOL 111L. Concepts of Biology Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, BIOL 111.

Typically Offered: FASPSU

BIOL 111L, in conjunction with BIOL 111, is designed to fulfill the lab science requirement of the student planning a non-science major. Included are laboratory activities on the nature of scientific thinking, genetics, biotechnology, evolution and ecology.

BIOL 115. Concepts of Anatomy & Physiology

Credits: 3

Typically Offered: FALLSPR

BIOL 115, in conjunction with BIOL 115L, is designed to be an introduction for students planning on taking higher level anatomy and physiology courses. The course will include a wide range of topics associated with the human body and human life. This course, when taken with the associated lab, will fulfill the lab science requirements for the student planning a non-science major.

BIOL 115L. Concepts of Anatomy & Physiology Lab

Credits: 1

Typically Offered: FALLSPR

BIOL 115L, in conjunction with BIOL 115, is designed to introduce students to the study of human anatomy and physiology. Included are laboratory activities on structure and function of the human body.

BIOL 124. Environmental Science

Credits: 3

Prerequisite: ENGL 110.

Typically Offered: FALLSPR

An introduction to the basic concepts of ecology will provide the framework for investigating current and potential environmental problems. Over-population, air and water pollution, contamination of food, accumulation of medical and other biohazardous wastes, and depletion and exploitation of natural resources will be discussed. The role of individuals, businesses, and professions in limiting environmental problems will be stressed. This course does not meet the lab science requirement, but it counts as a science course.

BIOL 125. Introduction to Ecology

Credits: 3

Corequisite: Concurrent registration in, or previous successful completion of, BIOL 125L.

Typically Offered: FALL

This course will introduce basic ecological concepts; describe the ecological structure, patterns, processes, and interactions of selected ecological communities and their organisms; and discuss human influences to these communities. Travel to specific ecological communities may be required.

BIOL 125L. Introduction to Ecology Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, BIOL 125.

Typically Offered: FALL

The laboratory includes fieldwork in selected ecological communities. Students will measure and analyze various biotic and abiotic factors and relate these to observed differences in community structure.

BIOL 150. General Biology I

Credits: 3

Typically Offered: FALLSPR

BIOL 150 will cover the fundamental concepts of biology. Included will be discussions of the cellular nature of living things, cell anatomy and basic cell physiology. Special emphasis will be placed on DNA and protein synthesis, cellular respiration, photosynthesis, and the cell cycle. Instruction in Mendelian inheritance and molecular genetics will complete the semester.

BIOL 150L. General Biology I Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, BIOL150.

Typically Offered: FALLSPR

BIOL 150L is designed to complement topics covered in BIOL 150. Included are lab activities focusing on molecular and cellular biology.

BIOL 151. General Biology II

Credits: 3

Corequisite: Concurrent registration in, or previous successful completion of, BIOL 151L.

Typically Offered: SPRING

BIOL 151 introduces theories of the origins of life on earth, evolution and describes current biological diversity. An overview of prokaryotes, protists, fungi, animals and plants will be included. The final segment of the course will include discussions on biogeography, population dynamics and community ecology.

BIOL 151L. General Biology II Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, BIOL 151.

Typically Offered: SPRING

BIOL 151L is designed to complement topics covered in BIOL 151. Included are lab activities focusing on evolution and the diversity of life.

BIOL 170. General Zoology

Credits: 3

Corequisite: BIOL 170L.

Typically Offered: SPRING

The purpose of this course is to give students a basic understanding of the diversity of animal life. Specifically, this course will explore the classification, anatomy, physiology, behavior, and ecology of major invertebrate and vertebrate Phyla. Topics covered include: Protozoa, Porifera, Cnidaria, Ctenophora, Acoelomorpha, Platyhelminthes, Rotifera, Mollusca, Annelida, Nematoda, Arthropoda, Echinodermata, and Chordata.

BIOL 170L. General Zoology Lab

Credits: 1

Corequisite: BIOL 170.

Typically Offered: SPRING

This lab serves to complement General Zoology lecture (BIOL 170). This lab will reinforce lecture material through hands on procedures including observation and dissection to allow students to study comparative anatomy and animal behavior. Topics covered include: Protozoa, Porifera, Cnidaria, Ctenophora, Acoelomorpha, Platyhelminthes, Rotifera, Mollusca, Annelida, Nematoda, Arthropoda, Echinodermata, and Chordata.

BIOL 213. General Pathology

Credits: 2

Typically Offered: FALL

This course will give students basic introduction to the human disease process. It will encompass an overview of normal anatomy and physiology followed by discussions relating to diagnoses, signs, symptoms and treatment options for various diseases in the 12 body systems.

BIOL 220. Anatomy and Physiology I

Credits: 3

Corequisite: Concurrent registration in, or previous successful completion of, BIOL 220L.

Typically Offered: FASPSU

This is the first of two courses in which anatomy and physiology are leveraged to present a unified picture of the structure and function of the organs and systems of the human body. The courses include biochemistry, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, and special senses. Both gross and microscopic structures are studied.

BIOL 220L. Anatomy and Physiology I Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, BIOL 220.

Typically Offered: FALLSPR

Anatomical structures will be studied at both gross and microscopic levels. Experiments are performed demonstrating fundamental physiological principles.

BIOL 221. Anatomy and Physiology II

Credits: 3

Prerequisite: BIOL 220 and BIOL 220L.

Corequisite: Concurrent registration in, or previous successful completion of, BIOL 221L.

Typically Offered: FALLSPR

This is the second of two courses in which discussions of anatomy and physiology are interwoven in an attempt to present a unified picture of the structure and function of the organs and systems of the human body. The following systems are examined: endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive. Both gross and microscopic structures are studied.

BIOL 221L. Anatomy and Physiology II Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, BIOL 221.

Typically Offered: FALLSPR

Anatomical structures will be studied at both gross and microscopic levels. Experiments are performed demonstrating fundamental physiological principles.