

BIOLOGY (BI)

BI101 General Biology 4 credits (3 lec, 3 lab hrs/wk)

Intended for non-science majors. Examines the organization of cells, including their composition and structure, energy-trapping and use, information storage, and cell division.

This course may be taken 1 time for credit.

Course classification: LDC

BI102 General Biology 4 credits (3 lec, 3 lab hrs/wk)

Intended for non-science majors. Addresses the organization and function of multicellular organisms, with an emphasis on humans.

This course may be taken 1 time for credit.

Course classification: LDC

BI103 General Biology 4 credits (3 lec, 3 lab hrs/wk)

A three (3) term sequence course, satisfies requirement for non-biological science pre-professional students. Surveys biological principles applied to plants and animals, from cellular level to ecological level of organization. General Biology attempts to convey to the student an appreciation of the most important aspects of life on earth.

This course may be taken 1 time for credit.

Course classification: LDC

BI111 Marine Habitats of the Oregon Coast 1 credit (2 lec lab hrs/wk)

Prerequisite(s): (MTH65) or (MTH98)

This course provides an introduction to marine habitats, the Oregon Institute of Marine Biology (OIMB), and the field of study for marine biology majors or other interested students. Low tide field trips are conducted to study animals and plants in their habitats. An introduction to courses and research conducted at OIMB is provided.

This course may be taken 1 time for credit.

Course classification: LDC

BI140 Practical Ecology 3 credits (3 lec hrs/wk)

An introduction to the basic concepts of ecology, using examples from the ecology of the local area, with a consideration of impacts made by different types of land use.

This course may be taken 1 time for credit.

Course classification: LDC

BI142 Habitats: Marine Biology 4 credits (3 lec, 3 lab hrs/wk)

Prerequisite(s): (MTH65) or (MTH98)

Examines the marine environment and the ecology, physiology, and morphology of marine plants and animals emphasizing Oregon. Laboratory focuses on environmental testing and identification.

This course may be taken 1 time for credit.

Course classification: LDC

BI149 Introduction to Human Genetics 3 credits (3 lec hrs/wk)

Prerequisite(s): (MTH65) or (MTH98)

Covers the basic concepts of genetics as they have developed since the nineteenth century. Discusses current techniques that are being developed and applied to problems of inheritance patterns, genetic disorders, and genetic therapy. Behavior and population genetics are included.

This course may be taken 1 time for credit.

Course classification: LDC

BI180 Internship: Biology 1-12 credits (3 lab hrs/wk/cr)

Prerequisite(s): Instructor consent

Practical on-site experience that will allow students to explore workplace environments and career options.

This course may be taken 12 times for credit.

Course classification: LDC

BI214 General Biology IV: Mechanisms 4 credits (3 lec, 3 lab hrs/wk)

Topics in Biochemistry: Amino Acid Chemistry, Protein Structure and Function, Hemoglobin, DNA Structure and Mutations; Topics in Genetics: Metabolic Pathways, Mutant Analysis, Complementation Tests, Regulation of Transcription, and the Lac Operon. Both lectures and laboratories. Sequence with BI201, BI202, and BI203.

This course may be taken 1 time for credit.

Course classification: LDC

BI221Z Principles of Biology: Cells 5 credits (3 lec, 2 lab hrs/wk)

Explores fundamental biological concepts and theories about the cellular and molecular basis of life including cell structure and function, metabolism, genetic basis of inheritance and how information flows from DNA to proteins, with a focus on the iterative process of science. Intended for science majors.

This course may be taken 1 time for credit.

Course classification: LDC

BI222Z Principles of Biology: Organisms 5 credits (3 lec, 2 lec lab hrs/wk)

Explores fundamental biological concepts and theories about the structure and function of diverse organisms (including plants and animals), evolution and development, transformation of energy and matter, and body systems at a multicellular organismal level. Intended for science majors.

This course may be taken 1 time for credit.

Course classification: LDC

BI223Z Principles of Biology: Ecolo/Evolut 5 credits

Explores the unity and diversity of life through evolutionary mechanisms and relationships, and adaptation to the environment. Examines population, community, and ecosystem ecology. Intended for science majors.

This course may be taken 1 time for credit.

Course classification: LDC

BI231 Human Anatomy and Physiology I 4 credits (3 lec, 3 lab hrs/wk)

Prerequisite(s): (BI101) or (BI221Z) or (CHEM110) or (CHEM223Z)

The curriculum of the first term of Human Anatomy and Physiology will include the study of body organization, tissues, and a study of the integumentary, skeletal, and muscular systems. The course will include the study of molecules, cells, tissues, organs and organ systems in humans. Some pathological conditions will be covered.

This course may be taken 1 time for credit.

Course classification: LDC

BI232 Human Anatomy and Physiology II 4 credits (3 lec, 3 lab hrs/wk)

Prerequisite(s): (BI231)

The curriculum of the second term of Human Anatomy and Physiology will include the study of: The nervous system including nervous tissue, the spinal cord and spinal nerves, the brain and cranial nerves, sensory and motor and integrative nervous systems, the special senses and the autonomic nervous system; the endocrine system with emphasis on hormone activity, the major hormones of each gland, hormones involved in growth and the stress response; the cardiovascular system including blood, the heart, blood vessels and hemodynamics.

This course may be taken 1 time for credit.

Course classification: LDC

BI233 Human Anatomy and Physiology III 4 credits (3 lec, 3 lab hrs/wk)

Prerequisite(s): (BI232)

The curriculum of the third term of Human Anatomy and Physiology will include the study structure and function of the: Respiratory system; digestive system; metabolism; urinary system; fluid, electrolyte, and acid base balance; the reproductive system; and human development and inheritance.

This course may be taken 1 time for credit.

Course classification: LDC

BI234 Microbiology 4 credits (3 lec, 3 lab hrs/wk)

Prerequisite(s): (BI101) or (BI221Z) or (CHEM110) or (CHEM223Z)

Microbiology principles are applied to health-related fields. Includes characteristics, physiology, and growth requirements of microorganisms, sterilization principles, infection, and immunity. Pathogenic microbes, infections and host resistance will be a consideration.

This course may be taken 1 time for credit.

Course classification: LDC

BI280 CWE: Biology 1-6 credits (3 lab hrs/wk/cr)

Prerequisite(s): Instructor consent

Practical worksite exposure to applied science, which provides students an opportunity to explore potential career paths in science while gaining practical experience in applying classroom science theory.

This course may be taken 12 times for credit.

Course classification: LDC