

BIOLOGY (BIOS)

BIOS 1010 General Biology

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

This course covers fundamental processes of cells and organisms, cell structure, genetics, evolution, classification, diversity, and interaction of organisms at the molecular, cellular, organismic, ecosystems, and biosphere level. It is designed as both a course for non-majors and as a foundation course for those planning additional work in biology. Includes lab. Fee \$20.

BIOS 1011 General Biology Lab

0.0 credit hours

0 Classroom Hours

Lab for General Biology.

BIOS 1020 Cell Biology

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

An introductory biology course focused on the study of cellular structure and function, including cellular development, metabolism, reproduction and inheritance. Prerequisite: Grade of "C" or higher in BIOS 1010. Fee: \$30

BIOS 1021 Cell Biology Lab

0.0 credit hours

0 Classroom Hours

Lab for Cell Biology.

BIOS 1060 Birds of Nebraska

2.0 credit hours

30.0 Classroom Hours = 30.0 Lecture Hours

A survey of general avian biology, ecology, and systematics. Emphasis will be on natural history and identification of Nebraska species. Field trips required.

BIOS 1090 General Botany

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

A basic study of plants and plant-like organisms, including topics such as anatomy, physiology, growth, reproduction, morphology, taxonomy, genetics, and evolution. Leads to an understanding of economic importance and relationships to the environment. Prerequisite: Grade of "C" or higher in BIOS 1010 or equivalent or permission of instructor. Fee \$30.

BIOS 1091 General Botany Lab

0.0 credit hours

0 Classroom Hours

Lab for General Botany.

BIOS 1100 Basic Anatomy & Physiology

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

A basic study of the human body systems and their respective functions. Designed for medical office students and those students that need a beginning course in the subject. Non-lab course.

BIOS 1120 Intro to Zoology

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

A survey of the animal kingdom with emphasis on broad zoological principles. The evolution, distribution, ecology and current importance of major animal groups and animal-like organisms will be studied.

Prerequisite: Grade of "C" or higher in BIOS 1010 or equivalent or permission of instructor. Fee \$30.

BIOS 1121 Intro to Zoology Lab

0.0 credit hours

0 Classroom Hours

Lab for Zoology.

BIOS 1200 Ecology/Environment

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

An introductory analysis of the fundamental principles of environmental science - including natural resources, the scientific method, pressures on the global environment and concepts of sustainability and sustainable development. Note: Credit will not be given in both BIOS 1200 and BIOS 1210.

BIOS 1210 Ecology/Environment w/Lab

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

An introductory analysis of the fundamental principles of environmental science - including natural resources, the scientific method, pressures on the global environment and concepts of sustainability and sustainable development. This course includes a lab portion. Note: Credit will not be given in both BIOS 1200 and BIOS 1210.

BIOS 1400 Intro to Nutrition

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

Principles of nutritional science with regard to the functions of various nutrients in the human body and the special nutrient requirements of individuals based on age, sex, occupation, and condition of health. Recommended for pre-nursing, physical education, and family and consumer science emphases.

BIOS 1600 Current Issues in Biology

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

This course reflects issues discussed in the current world of science. The topics may cover Cancer, Biological Terrorism, HIV-AIDS, Emerging Infectious Diseases, Stem Cells, Alzheimers and the Human Genome. Topic study will reflect the scientific and historical basis, the current status and the affect on society.

BIOS 2120 Genetics

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

An introductory analysis of the fundamental principles of heredity including Mendelian inheritance, mutations, and applied genetics. Non-lab course. Note: Credit will not be given in both BIOS 2120 and BIOS 2140. Prerequisite: Grade of "C" or higher in BIOS 1010.

BIOS 2140 Genetics

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

An introductory analysis of the fundamental principles of heredity including Mendelian inheritance, mutations, and applied genetics. This is a lab required course. Note: Credit will not be given in both BIOS 2120 and BIOS 2140. Prerequisite: Grade of "C" or higher in BIOS 1010. Fee \$30.

BIOS 2141 Genetics Lab

0.0 credit hours

0 Classroom Hours

Lab for BIOS 2140 Genetics.

BIOS 2250 Human Anatomy/Physiology I

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

Form and function of the human body, including homeostatic mechanisms, organization, biochemistry, cells, tissues, integumentary system, skeletal system, muscular system, nervous system, and an introduction to the special senses. Prerequisite: Grade of "C" or higher in BIOS 1010 or department approval. Fee \$30.

BIOS 2251 Human Anatomy/Physiology I Lab

0.0 credit hours

0 Classroom Hours

Lab for Human Anatomy and Physiology I.

BIOS 2260 Human Anatomy & Physiology II

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

Form, function and homeostasis of the following human body systems: overview of the nervous system and special senses, endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, digestive system, metabolism, urinary system, and reproductive system, as well as balance of fluids, electrolytes, pH. Prerequisite: Grade of "C" or higher in BIOS 2250. Fee \$30.

BIOS 2261 Human Anatomy & Physiology II Lab

0.0 credit hours

0 Classroom Hours

Lab for Human Anatomy & Physiology II.

BIOS 2460 Microbiology

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

Study of microbiology with emphasis on structure of microbial cells, their nutrition and growth, control of growth including the immune system, genetics and genetic engineering, metabolic and biosynthetic activity, and host-parasite interactions. Accompanying laboratory study emphasizes microbiological techniques including microbial control and manipulation. Prerequisite: Grade of "C" or higher in BIOS 1010 or department approval. Fee \$30.

BIOS 2461 Microbiology Lab

0.0 credit hours

0 Classroom Hours

Lab for Microbiology.

BIOS 2500 Scientific Research Experience

2.0 credit hours

30.0 Classroom Hours = 30.0 Lecture Hours

Under supervision of a faculty member, students will conduct original research in the field of biology. Students will select their own or participate in ongoing research projects, write a literature review, design and conduct experiments, analyze data, and present their conclusions in a public seminar. Designed for students intending on attending graduate or professional school or pursuing careers in biological science. Prerequisite: Grade of "C" or higher in BIOS 1010 or equivalent.

BIOS 2980 Directed Study

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

Directed Study

BIOS 2990 Special Topics

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

Special topic course description upon request.