

BIOLOGY (BIOL)

BIOL-100 Concepts of Biology

4 Credits

Lecture: 3 hours per week, **Lab:** 2 hours per week

Offering: Fall, Spring, and Summer, All Years

This course provides a general overview of evolution, the five kingdoms, DNA, cell structure, genetics, and human systems. BIOL-100 is designed to give non-biology majors a better understanding and appreciation of the living world. It is not intended as a preparation for BIOL-115 or BIOL-175.

Corequisites: BIOL-100L

BIOL-101 Introduction to Natural Resources

1 Credit

Lecture: 1 hour per week

Offering: Fall Only, All Years

This course is an introduction to forestry and related natural resources management professions. Students will explore various career opportunities in natural resource management.

BIOL-114 Organisms and Environments

4 Credits

Lecture: 3 hours per week, **Lab:** 3 hours per week

Offering: Fall and Spring Only, All Years

This course is an introduction to ecology, evolutionary processes, and a survey of the diversity of life; intended for students in biology-related majors. Topics will include evolutionary theory, phylogeny and taxonomy of life, populations, communities, ecosystems, viruses, prokaryotes, protists, fungi, plants, and animals. This course pairs with Biology 115 to provide an introductory two semester course sequence for biology majors.

Corequisites: BIOL-114L

BIOL-115 Introduction to Life Sciences

4 Credits

Lecture: 3 hours per week, **Lab:** 3 hours per week

Offering: Fall and Spring Only, All Years

This course is an introduction to the fundamental principles that govern living organisms, including molecular biology, cell biology, homeostasis, reproduction, genetics, and evolution.

Corequisites: BIOL-115L

BIOL-170 Introductory Foods

3 Credits

Lecture: 3 hours per week

Offering: Spring Only, All Years

This course will cover the composition of food and the chemical and biological changes that occur in food preparation.

BIOL-170L Introductory Foods Lab

1 Credit

Lab: 2 hours per week

Offering: Spring Only, All Years

This course is a lab setting to explore the composition of food and the chemical and biological properties that occur in food preparation.

BIOL-174 Human Biology Recitation

1 Credit

Lecture: 1 hour per week

Offering: Fall and Spring Only, All Years

This course provides instruction and practical study techniques essential for academic success in Human Biology (BIOL-175). This course emphasizes notetaking, scientific writing, vocabulary skills, and utilizing online and traditional resources to prepare for taking human biology exams. Activities and assignments will occur in class and online.

Corequisites: BIOL-175

BIOL-175 Human Biology

4 Credits

Lecture: 3 hours per week, **Lab:** 3 hours per week

Offering: Fall, Spring, and Summer, All Years

This course provides a general overview of the structure, function, healthy maintenance, and common diseases of the human body. BIOL-175 is designed to give the non-biology major a better understanding and appreciation of the human body.

Corequisites: BIOL-175L

BIOL-207 Concepts in Human Nutrition

3 Credits

Lecture: 3 hours per week

Offering: Fall and Spring Only, All Years

This course offers instruction in basic nutrition concepts, current nutritional controversies, and food selection for individual needs. Topics covered include carbohydrates, fats, proteins, vitamins, minerals, energy balance, vegetarian diets, product labels and additives, life cycle needs, and diets for athletes. Individual dietary habits will be closely examined through a self-evaluation of personal diet studies. BIOL-207 provides important basic knowledge in making personal dietary decisions.

BIOL-221 Forest Ecology

4 Credits

Lecture: 3 hours per week, **Lab:** 3 hours per week

Offering: Spring Only, All Years

This course is an introduction to the relationships among living and non-living components in the environment, including an examination of the processes which influence the distribution of plant and animal communities. This course exposes students to fundamental principles of ecology used in careers in natural resource management. This course is the same as BIOL-231.

Prerequisites: BIOL-115

Corequisites: BIOL-221L

BIOL-227  **Human Anatomy and Physiology I**
4 Credits

Lecture: 3 hours per week, **Lab:** 3 hours per week

Offering: Fall and Spring Only, All Years

This course offers a homeostatic approach to the study of the human body from the level of the cell to organ systems with emphasis on normal structure and function, as well as selected physiological imbalances. Systems covered include integument, skeletal, muscular, and nervous. It is designed primarily for students enrolled in health-related fields. Human Anatomy and Physiology will give students a strong background in the fundamentals of structure and function of the body. Aspects of life processes will be covered for students wishing to take a science elective, as well as those in the health-related areas. The laboratory sessions require preserved specimen dissection. In addition, identification of anatomical structures on a prosected cadaver will be required.

Corequisites: BIOL-227L

Recommended Prerequisites: BIOL-100 or BIOL-175

BIOL-228 Human Anatomy and Physiology II With Cadaver
4 Credits

Lecture: 3 hours per week, **Lab:** 3 hours per week

Offering: Fall and Spring Only, All Years

This course is a continuation of BIOL-227. Systems covered include cardiovascular, digestive, urinary, respiratory, and reproductive, as well as the sense organs and metabolism. It is designed for students enrolled in health-related fields. This course gives students a strong background in the fundamentals of the structure and function of the body. Aspects of life processes will be covered for students wishing to take a science elective, as well as those in the health-related areas. The laboratory sessions require preserved specimen dissection. In addition, identification of anatomical structures on a prosected cadaver will be required.

Prerequisites: BIOL-227

Corequisites: BIOL-228L

BIOL-231 General Ecology
4 Credits

Lecture: 3 hours per week, **Lab:** 3 hours per week

Offering: Spring Only, All Years

This course shows relationships between living and non-living components of the environment. It examines the processes which influence the distribution of plant and animal communities. It provides an exposure to the fundamental principles of ecology in natural resource management. This course is designed for forestry and biology majors with applications for pre-agriculture, zoology, environmental science, and botany disciplines. This course is the same as BIOL-221.

Prerequisites: BIOL-100 or BIOL-115

Corequisites: BIOL-231L

BIOL-251 Principles of Range Resources Management
2 Credits

Lecture: 2 hours per week

Offering: Fall Only, Odd Years

This course studies the development of range use, range resource management, rangeland vegetation types, current management issues, and the relationship of grazing use with other land uses and values.

Prerequisites: BIOL-100 or BIOL-115

BIOL-260 Human Cadaver Prosection I
2 Credits

Lab: 3 hours per week

Offering: Fall Only, All Years

This course includes supervised cadaver dissections that will follow the sequence of gross anatomy studies observed in BIOL-227 and BIOL-228. Dissections for the semester will begin with a review of previous cadaver dissections. Cadaver dissection sequencing will follow this general outline: torso, upper extremity, lower extremity, ventral cavities, head and neck, and finish with the dorsal cavities. Fall semester students will present a review of the muscle anatomy to the BIOL-227 students. This course is designed to improve competency in human gross anatomy.

Prerequisites: BIOL-227 with a grade of C or better and permission of the instructor.

BIOL-261 Human Cadaver Prosection II
2 Credits

Lab: 3 hours per week

Offering: Spring Only, All Years

This course includes supervised cadaver dissections that will follow the sequence of gross anatomy studies observed in BIOL-227 and BIOL-228. Dissections will begin with a review of previous cadaver dissections. Cadaver dissection sequencing will follow this general outline: torso, upper extremity, lower extremity, ventral cavities, head and neck, and finish with the dorsal cavities. Spring semester students will present a review of the vascular anatomy to the BIOL-228 students. This course is designed to improve competency in human gross anatomy.

Prerequisites: BIOL-227 with a grade of C or better and permission of the instructor.

BIOL-290 Principles of Wildlife Biology
2 Credits

Lecture: 2 hours per week

Offering: Fall Only, Even Years

This course introduces the principles of wildlife ecology including such topics as basic ecological laws, wildlife biology, and management of wildlife populations.

Prerequisites: BIOL-100 or BIOL-115

Recommended Prerequisites: ZOOL-202 or BTNY-203