

BIOLOGY (BIOL)

QUICK FACTS: BIOL COURSES

- **Instructional School:** Science, Technology, and Math
- **Department:** Biological Sciences

BIOL 100 Concepts of Biology

(3 Credits, Fall/Spring/Summer)

This is an introductory course for non-science majors that provides a broad survey of biology by exploring the principles and processes that apply to living systems, including current biological issues. PRE/COREQ: BIOL 100L. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 4 - Scientific Ways of Knowing.)*. (3 lecture hours, 0 lab hours, 3 credits)

BIOL 100L Concepts of Biology Lab

(1 Credit, Fall/Spring/Summer)

This is an introductory course for non-science majors and fulfills the laboratory component of the GEM 4 Scientific Ways of Knowing requirement. Students will engage with the process of science by making observations, developing questions, using scientific apparatus to collect and analyze data, and communicate the results of scientific work. Additional fee required for lab. PRE/COREQ: BIOL 100. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 4 - Scientific Ways of Knowing.)*. (0 lecture hours, 3 lab hours, 1 credits)

BIOL 104 Professions in Biology

(3 Credits, Varies)

This course is designed to introduce students to career opportunities, professional development, and current issues in the field of Biology. Students will be encouraged to develop basic job search skills and documents, including a resume, cover letter, online application profiles, and communication competency. In addition, guest lecturers and field trips will provide valuable information to facilitate students in their decision-making process and future course selection. (3 lecture hours, 0 lab hours, 3 credits)

BIOL 111 Biology I

(3 Credits, Fall/Spring/Summer)

This is an introductory biology course for science majors. It will emphasize biological principles important in understanding living organisms to include evolution, general biochemistry, cytology, and Mendelian and molecular genetics. Prior completion of CHEM 101 or CHEM 111 is strongly recommended. Students who believe they may be eligible for advanced-placement status in courses listing BIOL 111 as a prerequisite should see the Biology department chair. PRE/COREQ: BIOL 111L. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 4 - Scientific Ways of Knowing.)*. (3 lecture hours, 0 lab hours, 3 credits)

BIOL 111L Biology I Lab

(1 Credit, Fall/Spring/Summer)

This course fulfills the laboratory component of the GEM 4 Scientific Ways of Knowing requirement. Students will engage with the process of science by making observations, developing questions, designing experiments, using scientific apparatus to collect and analyze data, and communicating the results of scientific work. Additional fee required for lab. PRE/COREQ: BIOL 111. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 4 - Scientific Ways of Knowing.)*. (0 lecture hours, 3 lab hours, 1 credits)

BIOL 112 Biology II

(3 Credits, Fall/Spring/Summer)

This course is designed for science majors and provides an overview of evolution, the diversity of life, ecology, and the fundamentals of organismal structure and function. All domains and kingdoms of life are included, with the primary focus on plants and animals. Students will complete a taxonomic and comparative study of organismal anatomy, physiology, and evolutionary relationships. Concurrent enrollment in BIOL 112L is strongly recommended. PREREQ: BIOL 111 and BIOL 111L with a grade of C or higher. (3 lecture hours, 0 lab hours, 3 credits)

BIOL 112L Biology II Lab

(1 Credit, Fall/Spring/Summer)

This course is designed for science majors and provides an overview of the diversity of life with a primary emphasis on the skill-sets that scientists use to ask and answer questions. Students will design investigations, collect and analyze data, and present their findings regarding a taxonomic and/or comparative study of organismal anatomy, physiology, and/or evolutionary relationships. Concurrent enrollment in BIOL 112 is strongly recommended. PREREQ: BIOL 111 and BIOL 111L with a grade of C or higher. (0 lecture hours, 3 lab hours, 1 credits)

BIOL 113 Biology III: Principles of Structure and Function

(3 Credits, Spring)

This course will focus on the similarities and differences in morphology and physiology across the tree of life. Both plants and animals will be considered. Organisms have evolved various morphological and physiological traits as adaptations to environmental challenges. This course will examine these anatomical and morphological traits in an evolutionary context. Concurrent enrollment in BIOL 113L is strongly recommended. PREREQ: BIOL 112 and BIOL 112L with a grade of C or higher. (3 lecture hours, 0 lab hours, 3 credits)

BIOL 113L Biology III: Principles of Structure and Function Lab

(1 Credit, Spring)

The laboratory component of this course will examine the diversity of structural and physiological adaptations found among living organisms. Students will engage with the process of science via making observations, developing questions, using scientific apparatus to collect and analyze data, and communicating the results of scientific work. Concurrent enrollment in BIOL 113 is strongly recommended. PREREQ: BIOL 112 and BIOL 112L with a grade of C or higher. (0 lecture hours, 3 lab hours, 1 credits)

BIOL 127 Human Structure and Function

(3 Credits, Fall/Spring/Summer)

This is an introductory course for non-science majors on human structure and form that provides a broad survey of human biology covering eleven body systems, their major components, elementary functions, and some basic system interactions. Using these basic system interactions as foundational material, the course will address current issues in human health. PRE/COREQ: BIOL 127L. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 4 - Scientific Ways of Knowing.)*. (3 lecture hours, 0 lab hours, 3 credits)

BIOL 127L Human Structure and Function Lab

(1 Credit, Fall/Spring/Summer)

This is an introductory course for non-science majors on human structure and form and fulfills the laboratory component of the GEM 4 Scientific Ways of Knowing requirement. Students will engage with the process of science by making observations, developing questions, using scientific apparatus to collect and analyze data, and communicating the results of scientific work. Additional fee required for lab. PRE/COREQ: BIOL 127. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 4 - Scientific Ways of Knowing.). (0 lecture hours, 3 lab hours, 1 credits)*

BIOL 199 Biology Special Topics

(1-5 Credits, Varies)

This course is designed to permit the offering of special topics appropriate to a student's program. Regular or frequently recurring topics are not offered under this title. The course may be repeated as new topics are presented. *(1 lecture hours, 0 lab hours, 1 credits)*

BIOL 226 Human Anatomy and Physiology I Plus

(1 Credit, Fall/Spring/Summer)

This course covers concepts that prepare students to be successful in BIOL 227 Human Anatomy and Physiology I and BIOL 228 Human Anatomy and Physiology II. Selected topics in chemistry (e.g. atomic structure, ions, chemical bonds, pH, macromolecules, etc.); cell biology (e.g. cell structure, membrane transport, cellular respiration, etc.); and medical terminology are covered. This class may be taken before or at the same time as BIOL 227P. *(1 lecture hours, 0 lab hours, 1 credits)*

BIOL 227 Human Anatomy and Physiology I

(3 Credits, Fall/Spring/Summer)

This course is the first in a two-semester sequence for students whose career objectives require a thorough study of structure (anatomy) and function (physiology) of the human body. The following systems are studied: integumentary skeletal, muscular, nervous, and endocrine. Unifying themes of homeostasis and whole body functioning are emphasized. This course conforms to guidelines established by the Human Anatomy and Physiology Society. PREREQ: BIOL 111 and BIOL 111L (with a grade of C or higher), or MMBS 111 and MMBS 111L (with a grade of C or higher), or successful completion of Anatomy and Physiology placement exam. PRE/COREQ: BIOL 227L. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 4 - Scientific Ways of Knowing.). (3 lecture hours, 0 lab hours, 3 credits)*

BIOL 227L Human Anatomy and Physiology I Lab

(1 Credit, Fall/Spring/Summer)

This course is the first in a two-semester sequence for students whose career objectives require a thorough study of structure (anatomy) and function (physiology) of the human body and fulfills the laboratory component of the GEM 4 Scientific Ways of Knowing requirement. Students will engage with the process of science by making observations, developing questions, using scientific apparatus to collect and analyze data, and communicating the results of scientific work. This course conforms to guidelines established by the Human Anatomy and Physiology Society. Additional fee required for lab. PRE/COREQ: BIOL 227 or BIOL 227P. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 4 - Scientific Ways of Knowing.). (0 lecture hours, 3 lab hours, 1 credits)*

BIOL 227P Human Anatomy and Physiology I

(3 Credits, Fall/Spring/Summer)

This course is the first in a two-semester sequence for students whose career objectives require a thorough study of structure (anatomy) and function (physiology) of the human body. The following systems are studied: integumentary skeletal, muscular, nervous, and endocrine. Unifying themes of homeostasis and whole body functioning are emphasized. This course conforms to guidelines established by the Human Anatomy and Physiology Society. PRE/COREQ: BIOL 226 and BIOL 227L. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 4 - Scientific Ways of Knowing.). (3 lecture hours, 0 lab hours, 3 credits)*

BIOL 228 Human Anatomy and Physiology II

(3 Credits, Fall/Spring/Summer)

This course is an introduction to the study of structure (anatomy) and function (physiology) of the human body. The following systems are studied: cardiovascular, immunity, respiratory, digestion, renal, and reproduction. Unifying themes of homeostasis and whole-body functioning are emphasized. This course conforms to guidelines established by the Human Anatomy and Physiology Society. PREREQ: BIOL 227 (or BIOL 227P) and BIOL 227L with a grade of C or higher. PRE/COREQ: BIOL 228L. *(3 lecture hours, 0 lab hours, 3 credits)*

BIOL 228L Human Anatomy and Physiology II Lab

(1 Credit, Fall/Spring/Summer)

This course is an introduction to the study of structure (anatomy) and function (physiology) of the human body. Students will develop skill sets that scientists use to identify, ask, and answer questions regarding the human body. The following human body systems are studied: cardiovascular, immunity, respiratory, digestion, renal, and reproduction. Unifying themes of homeostasis and whole-body functioning are emphasized. This course conforms to guidelines established by the Human Anatomy and Physiology Society. Additional fee required for lab. PREREQ: BIOL 227 (or BIOL 227P) and BIOL 227L with a grade of C or higher. PRE/COREQ: BIOL 228. *(0 lecture hours, 3 lab hours, 1 credits)*

BIOL 280 Pathophysiology

(4 Credits, Fall/Spring)

This course provides an in-depth study of human pathological processes and their effects on homeostasis. This course will emphasize the dynamic aspects of disease and will focus on interrelationships among organ systems in deviations from normal functioning. PREREQ: BIOL 228 and BIOL 228L with a grade of C or higher. *(4 lecture hours, 0 lab hours, 4 credits)*

BIOL 293 Biology Internship

(1-3 Credits, Varies)

Internships allow students to apply learning to real-life career possibilities. Credits are earned through supervised fieldwork specifically related to a student's area of study. PREREQ: PERM/INST. *(0 lecture hours, 3 lab hours, 1 credits)*

BIOL 296 Biology Independent Study

(1-3 Credits, Varies)

This is a term long project. Each credit hour is equivalent to 45 hours of work on a project. Students should make arrangements with the instructor in their field of interest. Before enrolling for independent study, a student must obtain approval of the department chair and dean, acting on the recommendation of the instructor who will be supervising the independent study. An Independent Study Registration Form must be completed and turned into a One Stop Student Services location before a student may register for this course. PREREQ: PERM/INST and submission of a completed Independent Study Registration Form. *(0 lecture hours, 0 lab hours, 1 credits)*

Refer to [How to Read Course Descriptions](#) for an explanation of elements found in the course descriptions above.