

Biology

BIOL 100 Introductory Biology

4.0 units

Acceptable for credit: Transfer CSU

Advisories: Eligible for ENGL 101 or completion of; ENGL 514 - Writing Skills 4

An introduction to the concepts of biology with emphasis on their relevance to current problems of the world. Designed for majors in fields other than biological science, the course stresses genetics, cell biology, evolution, reproduction, ecology, behavior, and diversity of plants and animals. Lecture: 3 hours weekly. Lab: 3 hours weekly. (Fall, Spring) (Letter Grade or Pass/No Pass)

BIOL 120 Humans and the Environment

3.0 units

Acceptable for credit: Transfer to UC, CSU

Explores contemporary problems generated by human scientific, social and ethical interaction with the environment. Lectures examine the scope of present environmental problems, possible future impacts, and potential solutions. Topics include human impact on the environment, ecological controversies, ecosystem operation, water and energy perspectives, and values of wilderness preservation. Emphasis is on both local and global dimensions of the above topics. (Fall, Spring) (Letter Grade or Pass/No Pass)

BIOL 124 Human Anatomy

4.0 units

Acceptable for credit: Transfer to UC, CSU

C-ID Course Number: BIOL 110B

Advisories: BIOL 100 - Introductory Biology ; CHEM 120 - Introductory Chemistry ; and ENGL 514 - Writing Skills 4 ; or eligibility for ENGL 101

An examination of the functional anatomy of the human organism. Lectures and laboratories investigate the microscopic and macroscopic structures of the major organ systems. (Fall, Spring, Summer) (Letter Grade or Pass/No Pass)

BIOL 125 Human Physiology

4.0 units

Acceptable for credit: Transfer to UC, CSU

C-ID Course Number: BIOL 120B

Advisories: CHEM 120 - Introductory Chemistry

Prerequisite: ENGL 101 - Freshman Composition: Exposition ; and BIOL 124 - Human Anatomy

A study of the functions and interactions of human cells, tissues, organs, and organ systems. Metabolic processes, negative feedback mechanisms, and homeostatic regulation are investigated in both lecture and laboratory sections. Emphasis is on the interaction of physiological processes responsible for the maintenance of normal body functions. Lecture: 3 hours weekly. Lab 3 hours weekly. (Fall, Spring) (Letter Grade or Pass/No Pass)

BIOL 128 Microbiology

4.5 units

Acceptable for credit: Transfer to UC, CSU

Prerequisite: BIOL 100 - Introductory Biology ; or BIOL 124 - Human Anatomy ; or BIOL 125 - Human Physiology ; or BIOL 150 - Cellular Biology ; and CHEM 120 - Introductory Chemistry ; or CHEM 150 - General Chemistry 1

An introduction to microorganisms, including morphology, physiology, and growth of bacteria and other microorganisms such as viruses. The role of bacteria and viruses as part of the human microbiome and host defenses against pathogens are emphasized. Laboratory procedures include identification, growth and metabolism of bacteria. Lecture: 3 hours weekly. Lab: 5 hours weekly. (Fall, Spring) (Letter Grade Only)

BIOL 132 Marine Biology

4.0 units

Acceptable for credit: Transfer to UC, CSU

Advisories: ENGL 301; or ENGL 514 - Writing Skills 4 ; or eligibility for ENGL 101

An introductory study of the biotic and physical factors of the marine shore community, with primary emphasis on the flora and fauna of the Central California coast. Several field trips to the marine shore required. Lecture: 3 hours weekly. Lab: 3 hours weekly. (Fall, Spring) (Letter Grade or Pass/No Pass)

BIOL 150 Cellular Biology

5.0 units

Acceptable for credit: Transfer to UC, CSU

C-ID Course Number: BIOL 190

Prerequisite: CHEM 150 - General Chemistry 1

A study of the nature of life, emphasizing its molecular and cellular aspects of life, particularly cellular reactions as governs organismic metabolism, biological and chemical evolution, and Mendelian genetics. Lecture: 3 hours weekly. Lab: 6 hours weekly. (Fall, Spring) (Letter Grade Only)

BIOL 154 General Botany

5.0 units

Acceptable for credit: Transfer to UC, CSU

C-ID Course Number: BIOL 155

Prerequisite: BIOL 100 - Introductory Biology ; or BIOL 150 -

Cellular Biology ; and MATH 309 - Algebra and Math Literacy ; or MATH 331 - Algebra 2

A survey of the plant kingdom, including structure and functions, heredity, evolution and ecology, economic uses, taxonomic classification, the role of plants in the ecosystem, and important problems common to all plants. Lecture: 3 hours weekly. Lab 6 hours weekly. (Spring) (Letter Grade or Pass/No Pass)

BIOL 155 General Zoology

5.0 units

Acceptable for credit: Transfer to UC, CSU

C-ID Course Number: BIOL 150

Prerequisite: BIOL 150 - Cellular Biology

Intended for the biology major, an exploration and survey of the animal phyla and non-photosynthetic, single-celled, eukaryotic taxa. Comparative structure, function, and life cycles of animals, as well as principles of evolution, taxonomy, and systematics are covered. Topics include development, morphology and physiology, phylogeny, and behavior of animals, as well as principles of evolution, mechanisms of evolutionary change, and speciation.

Lecture: 3 hours weekly. Lab 6 hours weekly. (Spring) (Letter Grade Only)

BIOL 179 Experimental Courses in Biology

0.5 - 3.0 units

Acceptable for credit:

Formerly known as "Workshops," these are courses designed in specific disciplines to test new curriculum before adopting it as part of an academic program. These courses meet specific needs in the college and community as they are identified. Each class will carry a specific title relating to the discipline concerned. Advanced level experimental course may require academic or equivalent prerequisite or corequisite. Experimental courses labeled 179 are transferable; those labeled 379 are non-transferable. (Letter Grade or Pass/No Pass)

BIOL 189 Independent Projects in Biology

1.0 - 3.0 units

Acceptable for credit: Transfer CSU

Courses for students capable of independent work who demonstrate the need or desire for additional study beyond the regular curriculum. Enrollment allows students to pursue activities such as directed field experience, research, or development of skills and competencies under faculty advisement and supervision. Independent projects may be earned in most disciplines. Students wishing to enroll in Independent Projects should contact the appropriate instructor identified in the class schedule. If the project proposed is acceptable to that instructor, a contract will be issued no later than the end of the second week of the semester. Units are awarded depending upon satisfactory performance and the amount of time committed by the student to the course. Allowable units vary according to discipline, and are based on the following formula: 1 unit - 48 hours per semester 2 units - 96 hours per semester 3 units - 144 hours per semester. (Letter Grade or Pass/No Pass)

BIOL 196 Self-directed Investigations

1.0 - 3.0 units

Acceptable for credit: Transfer CSU

Limitations on Enrollment: Enrollment is limited to 8 students per instructor due to safety concerns and the need to demonstrate a progression of knowledge or skills.

Prerequisite: BIOL 189 - Independent Projects in Biology

This course is designed to provide students the opportunity to further investigate a project from a previous semester at a more advanced level and/or pursue investigation of a new topic. (Fall, Spring) (Letter Grade Only)

BIOL 199 Special Topics in Biology

1.0 - 3.0 units

Acceptable for credit: Transfer CSU

-(Letter Grade or Pass/No Pass)

BIOL 199A Field Biology of the Sierra Nevadas

2.0 units

Acceptable for credit: D - Credit - Degree Applicable

Advisories: ENGL 300; or Eligibility for READ 310

An exploration of the plant and animal communities of selected portions of the Sierra Nevadas. When in the field, campsites are

set up and maintained by the class. This course is commonly run in conjunction with Geology 199C (Topics in Geology: Sierra NV). Six hours of lecture precede the field trip. (Pass/No Pass)