

BIOLOGY (BIOL)

BIOL-103 Introduction to Nutrition

3 Units

54 hours lecture; 54 hours total

This is a general introduction to concepts of nutrition and its relation to human health. Course topics include a study of nutrients; their use and effect in the body; psychological, socioeconomic and geographic influences of nutritional practices; and current nutritional concerns. Calorie and nutrient analysis is considered in relation to balanced diets and weight control.

Transfers to both UC/CSU

BIOL-105 Human Biology

4 Units

54 hours lecture; 54 hours lab; 108 hours total

Prerequisite: Completion of *Intermediate Algebra, MATH-93 or MATH-232* with a minimum grade of C or appropriate placement.

Prerequisites or Corequisites: Concurrent enrollment in or previous completion of *CHEM-110* with a minimum grade of C.

A survey of human biology focusing on anatomy, physiology, cell development, tissues, organs, and organ systems. The course also covers molecular biology, genetics, human evolution, and diversity. Laboratories include microscopic observations, experiments, and animal dissections. This course is specifically designed for health occupations students as a prerequisite to Human Anatomy and Human Physiology, but is also designed for non-majors.

Transfers to both UC/CSU

BIOL-110 Survey of Biology

4 Units

54 hours lecture; 54 hours lab; 108 hours total

A study of life, including surveys of plant and animal kingdoms, mammalian anatomy and physiology, cytology, genetics, and ecology. Intended for non-biology majors.

Transfers to both UC/CSU

BIOL-112 Introduction to Ecology

3 Units

54 hours lecture; 54 hours total

This course explores basic principles of ecology and environmental biology, including study of major biomes and habitat types, biological diversity, interactions of organisms with the physical environment, plant and animal interactions, nutrient cycling and energy flow in ecosystems, and the interdependence of organisms in biological communities. The role of humans in the environment will also be examined. This is an introductory course for science majors as well as non-majors.

Transfers to both UC/CSU

BIOL-117 Wildlife Biology

3 Units

54 hours lecture; 54 hours total

An introduction to the biology, ecology, and management of terrestrial wildlife, with emphasis on California fauna. Includes one Saturday field trip to a wildlife refuge.

Transfers to both UC/CSU

BIOL-120 General Biology

4 Units

54 hours lecture; 54 hours lab; 108 hours total

Prerequisite: Completion of *CHEM-120* with a minimum grade of C.

Study of the basic principles of biology on the molecular and cellular levels with emphasis on macromolecules of life, organelle structure and function, cellular metabolism, cellular reproduction, Mendelian and molecular genetics. Intended primarily for Biology Majors or students requiring a molecular/cellular interpretation of life.

Transfers to both UC/CSU

BIOL-199 Independent Studies in Biology

1-3 Units

54-162 hours lab; 54-162 hours total

Prerequisite: Submission of a written proposal to be reviewed and approved by two regular biology faculty members.

Study in an area of biology of special interest to the student. May include advanced studies and projects begun in other biology courses or biological studies not normally included in formal course work.

Transfers to CSU only

BIOL-218 Human Anatomy

5 Units

54 hours lecture; 108 hours lab; 162 hours total

Prerequisite: Completion of *BIOL-105 OR BIOL-120* with a minimum grade of C.

An introduction to the principles of the gross and microscopic anatomy of the human body. Dissection of a human cadaver and a cat are supplemented by anatomical models, charts, and microscopic observation of human tissues. Primarily intended for students pursuing an Associates Degree in Nursing (ADN), A.S. Degree in Respiratory Care, or B.A./B.S. Degree in a Health Sciences field.

Transfers to both UC/CSU

BIOL-219 Human Physiology

5 Units

54 hours lecture; 108 hours lab; 162 hours total

Prerequisite: Completion of *CHEM-110 and BIOL-105 or BIOL-120* with a minimum grade of C.

Recommended Preparation: Completion of *BIOL-218* with a minimum grade of C.

An introduction to the function of the human body, emphasizing mechanisms of homeostasis and integration at the biochemical, cellular, tissue, organ, and organ system levels. Laboratory exercises include measurement and analysis of physiological data and study of structure-function relationships in body tissues and organs. Primarily intended for students pursuing an Associates Degree in Nursing, A.S. degree in Respiratory Care, or B.A./B.S. degree in a Health Sciences field.

Transfers to both UC/CSU

BIOL-220 General Microbiology

5 Units

54 hours lecture; 108 hours lab; 162 hours total

Prerequisite: Completion of *BIOL-120 or BIOL-219* with a minimum grade of C.

Morphology, metabolism, molecular genetics and ecology of bacteria, fungi, viruses, helminths and protozoa. Extensive laboratory work includes aseptic techniques, methods of cultivation, identification and enumeration of bacteria, examination of biochemical characteristics and molecular biology techniques using common bacteria. Primarily intended for students pursuing degrees in a health sciences field or majoring in biological sciences.

Transfers to both UC/CSU

BIOL-240 General Zoology

5 Units

54 hours lecture; 108 hours lab; 162 hours total

Prerequisite: Completion of *BIOL-120, CHEM-120 and Intermediate Algebra or MATH-95* with a minimum grade of C or appropriate placement.

An integrated course in zoology and organismal biology, emphasizing the anatomy, physiology, development, diversity, and evolutionary relationships of animals. Major topics include comparative study of major animal phyla, principles of evolution, genetics of organisms and populations, mechanisms of animal development, and structure-function relationships in animals. Intended for biology majors.

Transfers to both UC/CSU

BIOL-241 General Botany

5 Units

54 hours lecture; 108 hours lab; 162 hours total

Prerequisite: *Completion of BIOL-120, CHEM-120 and Intermediate Algebra or MATH-95 with a minimum grade of C or appropriate placement.*

An integrated study of contemporary plant biology and principles of ecology. The course includes the life cycles, anatomy, physiology, evolution and ecology of protists, fungi, and plants. Intended for Biology Majors.

Transfers to both UC/CSU