

NVC BIOLOGY COURSES 2014-2015

Introduction to Nutrition (BIOL 103)

This is a general education course for those with no previous background in nutrition, and intended primarily for the non-nutrition major. Course content includes a study of nutrients, their use and effect in the body, psychological, economic, cultural, social and geographic influences of nutritional practices. Calorie and nutrient analysis is considered in relation to balanced diets and weight control. The principles of nutrition are considered in relation to current concerns, and the basic ideas of biochemistry are introduced. CSU and UC transferrable. 3 units.

Human Biology (BIOL 105)

A survey of human biology focusing on anatomy, physiology, cell development, tissues, organs and organ systems. The course also covers molecular biology, genetics, ecology, evolution and diversity. Laboratories include microscopic observations, experiments, and animal dissections. Specifically designed for health occupations students as a prerequisite to Human Anatomy and Human Physiology, but is also designed for the non-major as well. *Recommended Preparation: ENGL 90, MATH 94, and CHEM 110.* CSU and UC transferrable. 4 units.

Survey of Biology (BIOL 110)

A study of life, including surveys of plant and animal kingdoms, mammalian anatomy and physiology, cytology, genetics, and ecology. Intended for non-biology majors. CSU and UC transferrable. 4 units.

Introduction to Ecology (BIOL 112)

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. CSU and UC transferrable. 3 units.

Wildlife Biology (BIOL 117)

Introduction to the biology, ecology, and management of terrestrial wildlife, with emphasis on California fauna. Includes one Saturday field trip to a wildlife refuge. CSU and UC transferrable. 3 units.

General Biology (BIOL 120)

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. CSU and UC transferrable. *Prerequisites: MATH 94 and CHEM 120.* 4 units.

Human Anatomy (BIOL 218)

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 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. *Prerequisites: BIOL 105 or BIOL 120, ENGL 90 and MATH 94.* CSU and UC transferrable. 5 units.

Human Physiology (BIOL 219)

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 tissue 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. *Prerequisites: BIOL 105 or BIOL 120, CHEM 110, ENGL 90 and MATH 94. Recommended Preparation: BIOL 218.* CSU and UC transferrable. 5 units.

(Note: BIOL 218 and 219 may not be taken concurrently except by petition approved by the department.)

General Microbiology (BIOL 220)

Morphology, metabolism, molecular genetics and ecology of bacteria, fungi, viruses, helminths and protozoa. Extensive laboratory work include aseptic techniques, methods of cultivation, identification and enumeration of bacteria, examination of physiologic characteristics and recombinant DNA techniques using common bacteria. For students majoring in biological sciences, medicine, veterinary medicine, dental hygiene, nursing, public health. *Prerequisites: BIOL 120 or BIOL 219, CHEM 110 or 120 and MATH 94.* CSU and UC transferrable. 5 units.

General Zoology (BIOL 240)

An integrated course in zoology organismal biology. Emphasis is on the anatomy, physiology, development, and natural history of animals; comparative study of major animal phyla; principles of evolution; and structure-function relationships in animals. Intended for Biology Majors. *Prerequisites: BIOL 120, CHEM 120 and MATH 94.* CSU and UC transferrable. 5 units.

General Botany (BIOL 241)

An integrated study of contemporary plant biology and principals of ecology. The course includes the life cycles, anatomy, physiology, evolution and ecology of the protists, fungi, and plants. Intended for Biology Majors. *Prerequisites: BIOL 120, CHEM 120 and MATH 94.* CSU and UC transferrable. 5 units.

Independent Studies in Biology (BIOL 199)

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. *Prerequisites: Submission of a written proposal to be reviewed and approved by two regular biology faculty members.* CSU transferrable. 1 to 3 units.

Selected Topics in Biology (BIOL 298)

Topics in biology not covered by regular catalog offerings. Course content and unit credit to be determined in relation to community/student needs and available staff. May be offered as a seminar, lecture, or lecture/laboratory class. CSU transferrable. 1 to 3 units.