

BIOLOGY

Associate Degrees

- Biology - Associate in Arts
- Biology - Associate in Science for Transfer
- General Studies with Emphasis in Health Science - Associate in Arts
- General Studies with Emphasis in Natural Science - Associate in Arts

BIOL 004A General Principles and Cell Biology 5 Units

This is the first course in a two term majors-sequence for students preparing for careers in the sciences, science education, biochemistry, or medicine. This lecture and laboratory course emphasizes the nature of science and the scientific method, and fundamental principles and theories in biology at the molecular and cellular level. Topics will include biological chemistry, cell structure and function, bioenergetics, cell reproduction, Mendelian inheritance, molecular genetics, biotechnology, evolution of the genome, and some biochemical laboratory techniques for proteins and DNA. Field trips may be required. (C-ID BIOL 190)

Lecture Hours: 3 Lab Hours: 6 Repeatable: No Grading: L
 Prerequisite: CHEM 001A or equivalent and MATH 013 both with C or better, or placement by multiple measures
 Recommended: Recently completed biology lecture and lab course with a grade of B or better in high school or college
 Advisory Level: Read: 3 Write: 3 Math: None
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2, B3 IGETC: 5B, 5C District GE: B2, B3

BIOL 004B Organismal Biology and Biodiversity 5 Units

This is the second course in a two semester majors sequence for students preparing for careers in the sciences, science education, or medicine. This lecture and laboratory course emphasizes the form and function, evolution, and biodiversity of unicellular and multicellular organisms. Topics include bacteria, archaea, protists, fungi, plants, and animals including the phylogenetic relationships among major taxa, macroevolution and Earth history, ecology, and adaptation. Science, the scientific method, and laboratory techniques are also covered. Field trips may be required. (C-ID BIOL 140)

Lecture Hours: 3 Lab Hours: 6 Repeatable: No Grading: L
 Prerequisite: BIOL 004A or its equivalent, with C or better
 Advisory Level: Read: 4 Write: 4 Math: None
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2, B3 IGETC: 5B, 5C District GE: B2, B3

BIOL 014 Head Smart Into the Sciences 3 Units

Thinking about being a scientist? Consider a major in Biology! The goal of this course is to introduce the wide variety of science pathways, careers in the Bay Area and strategies to help you do well in your future laboratory classes and beyond. This class includes field trips to research institutions such as San Jose State, opportunity to present your own research and the chance to build relationships with fellow students heading down the same pathway to a science career. You are invited to join Biology professors and student tutors in a supportive community that will guide you through your time at Evergreen Valley College and beyond.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: O
 Advisory Level: Read: 3 Write: 3 Math: 2
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: None IGETC: None District GE: None

BIOL 020 Human Biology 4 Units

This course introduces students to biology using humans as the exemplary organism. It covers the scientific method, biological chemistry and molecules, cell structure, evolution and the biological relationship of humans to all organisms, common human pathogens, human organ systems, human genetics and biotechnology, and the effect of human interactions with the environment. The course is intended for non-science majors.

Lecture Hours: 3 Lab Hours: 3 Repeatable: No Grading: L
 Advisory Level: Read: 3 Write: 3 Math: 3
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2, B3 IGETC: 5B, 5C District GE: B2, B3

BIOL 021 General Biology 4 Units

This is an introductory biology course for non-science majors. Topics covered include general principles and basic concepts of biology including the characteristics and classification of living systems, cells, metabolism, development, health, reproduction, genetics, evolution, and ecology.

Lecture Hours: 3 Lab Hours: 3 Repeatable: No Grading: L
 Advisory Level: Read: 3 Write: 3 Math: 2
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2, B3 IGETC: 5B, 5C District GE: B2, B3

BIOL 061 Human Heredity 3 Units

This course introduces students to the study of human heredity including the cellular basis of heredity, gene expression and Mendelian & non-Mendelian patterns of inheritance. The course also covers the nature of selected genetic disorders, genetic screening and testing, bioethics, the role of genetic counseling, and biotechnology including recombinant DNA techniques, assisted reproductive technologies, the human genome project, and bioinformatics.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
 Advisory Level: Read: 3 Write: 3 Math: 3
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2 IGETC: 5B District GE: B2

BIOL 062 Plants and Human Welfare 3 Units

Students are introduced to the world of plants and their ecological importance to humans. Plants provide the oxygen we need to breathe and the food we need to eat. Students will learn about plant anatomy, flowers and fruits, genetic modification of plants, nutrition, agriculture, gardening, plants for material, medicinal plants, poisonous plants, algae, fungi and diseases. Discussions include the impact of plants on the development of civilizations, the need for conservation, and the role of plants in the total environment.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
 Advisory Level: Read: 3 Write: 3 Math: 2
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2 IGETC: 5B District GE: B2

BIOL 063 Ecology: Connections of Life, Environment and Humans 3 Units

This course introduces students to the study of the abundance and distribution of plants and animals, and their interrelationships with the environment. Topics covered include the intersection of evolution and ecology, population biology, community organization, ecosystem function, biodiversity, preservation and conservation, and human ecology.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
 Advisory Level: Read: 3 Write: 3 Math: 3
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2 IGETC: 5B District GE: B2

BIOL 064 Marine Biology 4 Units

This is a lecture and laboratory course introducing students to the study of marine life. The course will cover physical and biological aspects of life in the sea including marine geology, physical oceanography, marine ecology, a comparative study of major marine taxa, and human exploitation and oceanic history. Special topics and required field trips to local marine habitats are an integral part of the course.

Lecture Hours: 3 Lab Hours: 3 Repeatable: No Grading: L
 Advisory Level: Read: 3 Write: 3 Math: 3
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2, B3 IGETC: 5B, 5C District GE: B2, B3

BIOL 065 Wildlife Biology 3 Units

This course is an introduction to the biology and ecology of wildlife for non-science majors. Emphasis is on wildlife, and its relationship to ecological succession and conservation, energy, mass, and to ecological crises resulting from human exploitation and the increase in the human population. Field trips may be required.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
 Recommended: A general science course at the high school level
 Advisory Level: Read: 3 Write: 3 Math: 3
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2 IGETC: 5B District GE: B2

BIOL 071 Human Anatomy 5 Units

This course covers the structure of the human body including identifying parts, understanding interrelationships, and making clinical applications. Laboratory activity includes the study of models, dissection of a human cadaver and other selected mammalian organs, and use of the microscope to study different cell types and major tissue types. This course is primarily intended for nursing, OT, PT, RT, Chiropractic, and other health-related majors. (C-ID BIOL 110B)

Lecture Hours: 3 Lab Hours: 6 Repeatable: No Grading: L
 Prerequisite: BIOL 020 or BIOL 021 or (BIOL 004A and BIOL 004B) all with C or better or AP Biology Exam with a 3, 4 or 5
 Advisory Level: Read: 3 Write: 3 Math: 3
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2, B3 IGETC: 5B, 5C District GE: B2, B3

BIOL 072 Human Physiology 5 Units

Students are introduced to cellular physiology and metabolism. Students study the physiological processes of the human body systems including nervous, endocrine, muscular, urinary, respiratory, sensory, digestive, cardiovascular and reproductive. Other topics include disease and the loss of homeostasis in the body. This course is designed for college degrees in nursing, physical and occupational therapy, and certain science and preprofessional majors. (C-ID BIOL 120B)

Lecture Hours: 4 Lab Hours: 3 Repeatable: No Grading: L
 Prerequisite: BIOL 071 and (CHEM 001A or CHEM 015 or CHEM 030A) and Intermediate Algebra all with C or better or appropriate placement beyond Intermediate Algebra
 Advisory Level: Read: 3 Write: 3 Math: None
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2, B3 IGETC: 5B, 5C District GE: B2, B3

BIOL 074 General Microbiology 5 Units

General Microbiology covers the structure and activities of microorganisms, including bacteria, viruses, protozoa, fungi, helminths, and algae. This course also covers principles of microbial control, metabolism, environmental microorganism genetics, genetic engineering, disease, modes of infection, and immunity. Emphasis is on aseptic laboratory technique, and the application of microbiology to human welfare.

Lecture Hours: 3 Lab Hours: 6 Repeatable: No Grading: L
 Prerequisite: (CHEM 001A or CHEM 015 or CHEM 030A) and (BIOL 004A or BIOL 071 or BIOL 072); all with C or better
 Advisory Level: Read: 3 Write: 3 Math: 3
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: B2, B3 IGETC: 5B, 5C District GE: B2, B3

BIOL 080A Field Biology - Canyons and Cliffs 1 Unit

The field biology courses introduce students to the human and natural histories of a variety of ecosystems. This course explores the biodiversity, geology, and human history of canyons and plateaus. The course entails on-campus lectures and field excursions. Course participation involves camping and hiking. Additional fees are required.

Lecture Hours: 0.44 Lab Hours: 2.11 Repeatable: No Grading: O
 Recommended: This is a field oriented course so physical preparation for camping and hiking is recommended.
 Advisory Level: Read: 3 Write: 3 Math: None
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: None IGETC: None District GE: None

BIOL 080B Field Biology - Birds and Blooms 1 Unit

The field biology courses introduce students to the human and natural histories of a variety of ecosystems. This course explores the biodiversity and phenology (timing of biological events such as flowering, migration, and breeding) of Spring including the impacts of climate change on phenology. Human history and geology add context. The course entails on-campus lectures and field excursions. Course participation involves camping and hiking. Additional fees are required.

Lecture Hours: 0.44 Lab Hours: 2.11 Repeatable: No Grading: O
 Recommended: This is a field oriented course so physical preparation for camping and hiking is recommended.
 Advisory Level: Read: 3 Write: 3 Math: None
 Transfer Status: CSU Degree Applicable: AA/AS
 CSU GE: None IGETC: None District GE: None

BIOL 080C Field Biology - Coastal California 1 Unit

The field biology courses introduce students to the human and natural histories of a variety of ecosystems. This course explores the biodiversity, geology, and human history of the California coast. The course entails on-campus lectures and field excursions. Course participation involves camping and hiking. Additional fees are required.

Lecture Hours: 0.44 Lab Hours: 2.11 Repeatable: No Grading: O
 Recommended: This is a field oriented course so physical preparation for camping and hiking is recommended.
 Advisory Level: Read: 3 Write: 3 Math: None
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: None IGETC: None District GE: None

BIOL 080D Field Biology - Desert and Dunes 1 Unit

The field biology courses introduce students to the human and natural histories of a variety of ecosystems. This course explores the biodiversity, geology, and human history of the California deserts. The course entails on-campus lectures and field excursions. Course participation involves camping and hiking. Additional fees are required.

Lecture Hours: 0.44 Lab Hours: 2.11 Repeatable: No Grading: O
 Recommended: This is a field oriented course so physical preparation for camping and hiking is recommended.
 Advisory Level: Read: 3 Write: 3 Math: None
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: None IGETC: None District GE: None

BIOL 080E Field Biology - Mountains 1 Unit

The field biology courses introduce students to the human and natural histories of a variety of ecosystems. This course explores the biodiversity, geology, and human history of the mountains. The course entails on-campus lectures and field excursions. Course participation involves camping and hiking. Additional fees are required.

Lecture Hours: 0.44 Lab Hours: 2.11 Repeatable: No Grading: O
 Recommended: This is a field oriented course so physical preparation for camping and hiking is recommended.
 Advisory Level: Read: 3 Write: 3 Math: None
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: None IGETC: None District GE: None

BIOL 080F Field Biology - Forest and River Ecology 1 Unit

The field biology courses introduce students to the human and natural histories of a variety of ecosystems. This course explores the biodiversity, geology, and human history of the California forests and rivers. The course entails on-campus lectures and field excursions. Course participation involves camping and hiking. Additional fees are required.

Lecture Hours: 0.44 Lab Hours: 2.11 Repeatable: No Grading: O
 Recommended: This is a field oriented course so physical preparation for camping and hiking is recommended.
 Advisory Level: Read: 3 Write: 3 Math: None
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: None IGETC: None District GE: None

BIOL 080G Field Biology - Volcanoes of California 1 Unit

The field biology courses introduce students to the human and natural histories of a variety of ecosystems. This course explores the biodiversity, geology, and human history of the California volcanic regions. The course entails on-campus lectures and field excursions. Course participation involves camping and hiking. Additional fees are required.

Lecture Hours: 0.44 Lab Hours: 2.11 Repeatable: No Grading: O
 Recommended: This is a field oriented course so physical preparation for camping and hiking is recommended.
 Advisory Level: Read: 3 Write: 3 Math: None
 Transfer Status: CSU/UC Degree Applicable: AA/AS
 CSU GE: None IGETC: None District GE: None

BIOL 098 Directed Study in Biology 0.5-9 Units

Individual or small groups of students who would benefit from independent study under the direction of faculty members in specific or related disciplines may develop individualized learning contracts designed to enhance their individual instructional programs. The students and the faculty member in consultation with the Division Dean will determine appropriate learning objectives and activities as well as the number of units to be earned. Instructions and the Learning Contract forms are available in the Division office. Repeatable to a maximum of 9 units across all disciplines.

Lecture Hours: None Lab Hours: 2.07 Repeatable: Yes Grading: O
 Prerequisite: Project approval is required by sponsoring faculty and division dean.
 Advisory Level: Read: 3 Write: 3 Math: 3
 Transfer Status: CSU Degree Applicable: AA/AS
 CSU GE: None IGETC: None District GE: None