

Biology (BIOL)

BIOL 100: Human Biology

Biology 100 is designed for the non-biologist who wishes to learn more about fundamental biological concepts, with emphasis on humans and the human body. Topics covered will include the structure and functions of cells, tissues, organs, and organ systems of the human body, which will be related to physical fitness, nutrition, health, disease and genetics. Evolution of humans and their role in the biosphere will also be covered. Not intended for science majors.

Credits: 3

Prerequisites: ENG 22 or ENG 24 with grade of C or better or equivalent.

BIOL 101: Biology and Society

Companion course to BIOL 101L Biology for Non-Majors Laboratory. The course will provide students not majoring in any of the natural sciences with an understanding of the major concepts in the following biological disciplines: cell structure and function, genetics, evolutionary theory, plant and animal structure and function, ecology and animal behavior. Additionally, it provides non-science majors with an understanding of the scientific approach to problem solving and the increasing role biology has in daily life.

Credits: 3

Prerequisites: ENG 24 with a grade of C or better or equivalent and BIOL 101L with a grade of C or better or concurrent enrollment or equivalent

BIOL 101L: Biology and Society Lab

Companion laboratory to BIOL 101 Biology for Non-Majors. The laboratory and field activities in BIOL 101L provide students not majoring in any of the natural sciences with an understanding of the major concepts in the following biological disciplines: cell structure and function, genetics, evolutionary theory, plant and animal structure and function, ecology and animal behavior. Additionally, it provides non-science majors with an understanding of the scientific approach to problem solving and the increasing role biology has in daily life. Laboratory attendance is required.

Credits: 1

Prerequisites: BIOL 101 with a grade of C or better or concurrent enrollment and Placement in ENG 100

BIOL 124: Environment and Ecology

This course examines the many interrelationships among organisms and their environment with an emphasis on the impact which our species has had (and may yet have) on the total planet. Problems of pollution, overpopulation, depletion of resources, etc. are considered. Causes of ecological problems and alternatives to current actions by people are suggested and evaluated, stressing the ecological action of the individual. Emphasis is placed on problems relating to island ecology and Hawai'i in particular.

Credits: 3

Prerequisites: ENG 22 or ENG 24 with a grade of C or better or equivalent

BIOL 124L: Environment and Ecology Lab

Laboratory to accompany BIOL 124

Credits: 1

Prerequisites: BIOL 124 or concurrent enrollment

BIOL 130: Anatomy and Physiology

BIOL 130 focuses on the structure and function of the human body which includes a study of its gross anatomy, microanatomy, physiology, pathology, and pathophysiology.

Credits: 4

Prerequisites: ENG 24 or equivalent or instructor consent

Recommended Prep: CHEM 100 or higher or biochemistry course; or college level biology or zoology course.

BIOL 130L: Anatomy and Physiology Lab

BIOL 130 L focuses on gross and microscopic anatomy of the human body with special emphasis upon the skeleton, muscles,

heart and blood vessels, and the nervous system.

Credits: 1

Prerequisites: Credit or concurrent enrollment in BIOL 130

BIOL 171: Introduction to Biology I

Introductory biology for all life science majors. Cell structure and chemistry, growth, reproduction, genetics, evolution, viruses, bacteria, and simple eukaryotes.

Credits: 3

Prerequisites: CHEM 151 or 151B (or concurrent); or CHEM 161 or CHEM 161 and CHEM 161L (or concurrent); or equivalent or instructor consent

Co-Requisites: BIOL 171L

Recommended Prep: High school level biology course

BIOL 171L: Introduction to Biology I Lab

Laboratory to accompany BIOL 171

Credits: 1

Prerequisites: CHEM 151 or 151B (or concurrent); or CHEM 161 (or concurrent); or equivalent or instructor consent

Co-Requisites: BIOL 171

Recommended Prep: High school level biology course

BIOL 172: Introduction to Biology II

Continuation of BIOL 171. Anatomy, physiology, and systematics of plants and animals; behavior; ecosystems, populations, and communities.

Credits: 3

Prerequisites: BIOL 171 and BIOL 171L with grade of C or better or equivalent

Co-Requisites: BIOL 172L

BIOL 172L: Introduction to Biology II Lab

Laboratory to accompany BIOL 172

Credits: 1

Prerequisites: BIOL 171 and BIOL 171L with grade of C or better or equivalent.

Co-Requisites: BIOL 172

BIOL 200: Coral Reefs

Companion course to BIOL 200L Coral Reefs Laboratory. The course is an introduction to the biology, ecology and geology of coral reefs. Topics include the physical and chemical properties of coral reef habitats, reef geology, the physiology, anatomy, ecology and evolution of coral reef organisms, and the management of human impacts on coral reefs. Emphasis will be on Hawai'i's coral reefs, but comparisons will be made among reefs from other areas.

Credits: 3

Prerequisites: ENG 24 with a grade of C or better or equivalent or qualified for ENG 100

Co-Requisites: BIOL 200L

BIOL 200L: Coral Reefs Lab

Companion laboratory to BIOL 200 Coral Reefs. The laboratory and field activities in BIOL 200L provide an introduction to the biology, ecology and geology of coral reefs. Topics include the physical and chemical properties of coral reef habitats, reef geology, the physiology, anatomy, ecology and evolution of coral reef organisms, and the management of human impacts on coral reefs. Emphasis will be on Hawai'i's coral reefs, but comparisons will be made among reefs from other areas.

Credits: 1

Prerequisites: BIOL 200 with a grade of C or better or concurrent enrollment and Placement in ENG 100

BIOL 265: Ecology and Evolutionary Biology

Principles of ecology and evolution for the life science majors stressing integrated approach and recent advances.

Credits: 3

Prerequisites: BIOL 171, BIOL 171L, BIOL 172 and BIOL 172L with a grade of C or better

Co-Requisites: BIOL 265L

BIOL 265L: Ecology and Evolutionary Biology Lab

Laboratory to accompany BIOL 265

Credits: 1

Prerequisites: BIOL 171, BIOL 171L, BIOL 172 and BIOL 172L with a grade of C or better

Co-Requisites: BIOL 265

BIOL 275: Cell and Molecular Biology

BIOL 275 is an integrated cell and molecular biology course for life science majors. This course is designed to give the student a fundamental understanding of the structure and biochemistry of eukaryotic and prokaryotic cells. The recombinant DNA technology and bioinformatics.

Credits: 3

Prerequisites: BIOL 171, BIOL 171L, CHEM 272 and CHEM 272L or instructor consent

BIOL 275L: Cell and Molecular Biology Lab

BIOL 275L is a lecture/laboratory in cell and molecular biology for life science majors. This course is taken either concurrently or after BIOL 275. Through lectures and laboratory exercises, students will acquire a fundamental understanding of the biochemistry of the cell. Students will also acquire competence in modern advances in protein chemistry, recombinant DNA technology and biotechnology.

Credits: 2

Prerequisites: BIOL 171, BIOL 171L, CHEM 272 and CHEM 272L or instructor consent

Co-Requisites: Credit or concurrent registration in BIOL 275