

Biology (BIOL)

Biology (BIOL) Classes

BIOL 100 : Human Biology

Credits: 3

Class Hours: 3 lecture

Prerequisites:

Qualified for ENG 100.

Corequisite Courses: BIOL 100L

Description:

This general science course emphasizes basic science concepts by studying human anatomy and physiology. The course introduces students to the structure and function of cells, tissues, organs, and systems of the human body. This course includes a study of the disease process and recent scientific advances.

Semester Offered: Spring

Designation: Diversification: Biological Sciences – DB

Course Student Learning Outcomes (CSLOs):

1. Identify and discuss anatomical structures and their functions.
2. Apply biological knowledge to self, family, Kaua'i, and Hawai'i.
3. Demonstrate comprehension and correct use of chemical and biological terminology, concepts, and knowledge in appropriate situations.
4. Describe and identify homeostatic relationships that function by both positive and negative feedback systems.
5. Describe the anatomical, physiological, and chemical inter-relationship of human biological systems and organs.

BIOL 100L : Human Biology Lab

Credits: 1

Class Hours: 3 lab

Prerequisites:

Qualified for ENG 100.

Corequisite Courses: BIOL 100

Description:

This lab course complements the human biology lecture with an emphasis on basic science concepts using the gross and microscopic anatomy and physiology of the ten systems of the human body.

Semester Offered: Spring

Designation: Diversification: Lab (Science) – DY

Course Student Learning Outcomes (CSLOs):

1. Identify the parts of a microscope and use it properly to identify histology slides.
2. Describe and employ the scientific method in laboratory investigation.
3. Describe/identify the planes, cavities, and gross anatomy of the human body.
4. Identify on models and diagrams specific anatomical parts of the human body systems.
5. Work effectively in a group to perform laboratory experiments, take measurements, and record and analyze data in a notebook.

BIOL 110V : Projects in Biology

Credits: 1-2

Meetings arranged

Prerequisites:

"B" or higher in BIOL 171, BOT 101, BOT 130, MICR 130, and SCI 121. Approval of instructor.

Recommended:

Qualified for ENG 100.

Comments:

May be repeated once for a maximum of 4 credits.

Description:

This class offers the opportunity to use equipment, techniques, or materials not ordinarily used in regular biology courses. The student will be actively involved with developing procedures, making adaptations, and constructing an apparatus used in the course. This class is project based and directed studies.

Semester Offered: Fall, Spring

Course Student Learning Outcomes (CSLOs):

1. Develop project proposal to conduct directed research.
2. Outline the procedures, analyze data, and explain the findings of a student project.

BIOL 171 : Introduction to Biology I

Credits: 3

Class Hours: 3 lecture

Corequisites:

BIOL 171L and either CHEM 151 or CHEM 161

Recommended:

Completed ENG 100.

Comments:

Cross-listed with MARE 171.

Description:

This course covers introductory biology with a marine emphasis for all life science majors including cell structure, chemistry, growth, reproduction, genetics, evolution, viruses, bacteria, and simple eukaryotes. It is taught with a molecular and cellular focus.

Semester Offered: Fall

Designation: Diversification: Biological Sciences – DB

Course Student Learning Outcomes (CSLOs):

1. Describe and explain the chemistry of life, the cell, genetics and mechanisms of evolution.
2. Synthesize and evaluate information about the chemistry of life, the cell, genetics and mechanisms of evolution when analyzing new information.
3. Demonstrate the ability to think critically and employ critical thinking skills.
4. Describe and explain the relationship between structure and function.
5. Apply knowledge of the chemistry of life, the cell, genetics and mechanisms of evolution when analyzing new information.

BIOL 171L : Introduction to Biology Laboratory I

Credits: 1

Class Hours: 3 lab

Corequisites:

BIOL 171 and CHEM 151 (or CHEM 161)

Comments:

Cross-listed with MARE 171L.

Description:

The laboratory complements BIOL 171 and must be taken concurrently with the lecture. It is intended to provide laboratory experiences that focus on organic molecules, cell structure, cell functions, and genetics.

Semester Offered: Fall

Designation: Diversification: Lab (Science) – DY

Course Student Learning Outcomes (CSLOs):

1. Demonstrate the safety procedures appropriate to a biological laboratory setting.
2. Use the scientific method by demonstrating an ability to formulate a testable hypothesis, collecting data necessary to test the hypothesis, analyzing and interpreting the results (in graphical form when appropriate), and discussing the outcome of the experiment.

3. Collect and analyze scientific data using appropriate specialized equipment and computer software.

BIOL 172 : Introduction to Biology II

Credits: 3

Class Hours: 3 lecture

Prerequisites:

"C" or higher in BIOL 171 and BIOL 171L.

Corequisite Courses: BIOL 172L

Comments:

Cross-listed with MARE 172.

Description:

BIOL/MARE 172 is a continuation of BIOL/MARE 171 emphasizing anatomy, physiology, and systematic of plants and animals to include behavior, ecosystems, populations, and communities.

Semester Offered: Spring

Designation: Diversification: Biological Sciences – DB

Course Student Learning Outcomes (CSLOs):

1. Apply knowledge of the evolutionary history of life, plant and animal form and function, and ecology when analyzing new information.
2. Synthesize and evaluate information about the evolutionary history of life, plant and animal form and function, and ecology when analyzing new information.
3. Demonstrate the ability to think critically and employ critical thinking skills.
4. Read and interpret graphs and data.

BIOL 172L : Introduction to Biology Laboratory II

Credits: 1

Class Hours: 3 lab

Corequisite Courses: BIOL 172

Comments:

Cross-listed with MARE 172L.

Description:

This laboratory complements the BIOL 172 lecture and must be taken concurrently with the lecture. It is intended to provide laboratory experiences that focus on a systemic study of the anatomy and physiology of plants and animals, and how they interact in populations, ecosystems, and communities.

Semester Offered: Spring

Designation: Diversification: Lab (Science) – DY

Course Student Learning Outcomes (CSLOs):

1. Students will demonstrate safety procedures in the laboratory such as proper use of eye protection and other protective clothing.
2. Use compound and dissecting microscopes to study plant and animal structure and function.
3. Describe and explain the evolutionary history of life, plant and animal form and function, and ecology.