

Botany (BOT)

Botany (BOT) Classes

BOT 101 : General Botany

Credits: 3

Class Hours: 3 lecture

Corequisite Courses:

BOT 101L

Recommended: Qualified for ENG 100S.

Description: This course covers the structure, growth, functions, and evolution of plants and their relationship to the environment and human activities. The course will give the student an overall view of the plant kingdom and the integral part that they play in life.

Semester Offered: Fall

Designation:

Diversification: Biological Sciences — DB

Course Student Learning Outcomes (CSLOs):

1. Discuss the principles of plant reproduction and genetics including methods of plant reproduction, Mendelian genetics, mitosis and meiosis, and the evolutionary relationship between plants and their pollinators.
2. Demonstrate an understanding and use of plant taxonomy.
3. Discuss the importance of plants to people including historical, cultural, environmental, and economic impacts.
4. Demonstrate an understanding of fundamental plant anatomy and plant physiology.
5. Demonstrate an understanding and use of the Scientific Method by conducting experiments, collecting and interpreting data, and organizing and presenting a directed research project in botany.

BOT 101L : General Botany Lab

Credits: 1

Class Hours: 3 lab

Corequisite Courses:

BOT 101

Recommended: Qualified for ENG 100S.

Description: This course covers the laboratory/hands-on part of BOT 101, which includes structure, growth, functions, and evolution of plants and their relationship to the environment and human activities. The course will give the student an overall view of the plant kingdom and the integral part that they play in life.

Semester Offered: Fall

Designation:

Diversification: Lab (Science) — DY

Course Student Learning Outcomes (CSLOs):

1. Discuss the importance of plants to people including historical, cultural, environmental, and economic impacts.
2. Discuss the principles of plant reproduction and genetics including methods of plant reproduction, Mendelian genetics, mitosis, meiosis, and the evolutionary relationship between plants and their pollinators.
3. Demonstrate an understanding and use of plant taxonomy including relevant terminology, the classification system (domain and kingdom), binomial nomenclature, explain differences between monocots and dicots, and be able to use and make dichotomous keys.
4. Demonstrate an understanding of fundamental plant anatomy and plant physiology including identifying plant structures and their functions at the multi-cellular and cellular levels, understanding plant nutrition and growth, discussing the plant transports.
5. Demonstrate an understanding and use of the Scientific Method by conducting experiments, collecting and interpreting data, and organizing and presenting a directed research project in botany.

BOT 105 : Ethnobotany

Credits: 3

Class Hours: 3 lecture

Recommended: Qualified for ENG 100.

Comments: Cross-listed with HWST 211.

Description: The course focuses on the importance of plants and their influence upon the cultures of Hawai'i and the Pacific. Students learn traditional and contemporary use of cultivated and wild plants.

Semester Offered: Fall, Spring

Designation:

Diversification: Social Sciences — DS

Graduation Requirement: Pacific Cultures — PC

Course Student Learning Outcomes (CSLOs):

1. Demonstrate an understanding of the science of ethnobotany.
2. Identify and evaluate the role plants played in Hawaiian culture.
3. Identify, evaluate, and compare the role plants played on other cultures using examples from Hawai'i, the Pacific, and Okinawa.
4. Carry out directed research on the cultural use of specific plants and use the findings to recreate a cultural representation (artifact) using traditional methods.

BOT 130 : Plants in the Hawaiian Environment

Credits: 3

Class Hours: 3 lecture

Corequisite Courses:

BOT 130L

Recommended: Qualified for ENG 100. Concurrent enrollment in MATH 75X.

Description: This course is an introduction to the biological sciences demonstrated through the study of the evolution of plant species and communities of the Hawaiian Islands. The course will include the study of ecological interactions, human impact on the environment, observational skills and scientific inquiry, plant structure and form in relation to function, and the identification and systematics of native and introduced flora.

Semester Offered: Spring

Designation:

Diversification: Biological Sciences — DB

Course Student Learning Outcomes (CSLOs):

1. Recognize general plant morphology as it relates to function.
2. Explain the concepts of botany as a science.
3. Compare the major vegetation zones.
4. Analyze the impact of humans on Hawaiian ecosystems.

BOT 130L : Plants in the Hawaiian Environment Lab

Credits: 1

Class Hours: 3 lab

Corequisite Courses:

BOT 130

Recommended: Qualified for ENG 100. Concurrent enrollment in MATH 75X.

Description: BOT 130L is a one-credit laboratory science course designated to accompany BOT 130. The course is a hands-on, experiential approach to the biological sciences. This course will involve students in specific application of lecture materials and concepts through scientific inquiry and field observations. Field trips are included.

Semester Offered: Spring

Designation:

Diversification: Lab (Science) — DY

Course Student Learning Outcomes (CSLOs):

1. Recognize Hawaiian plants in the field.
2. Design an experimental propagation project using experimental analysis and evaluation.

3. Apply knowledge of Hawaiian plants to a community service project.
4. Demonstrate the ability to clarify information during field trips.