

BOT 192V Special Topics in Botany: Analysis of antioxidant activities in Hawaiian plants

3 Credits

Time variable, Kailua High School

INSTRUCTOR:	Hongwei Li Ph.D.
OFFICE HOURS:	Time variable, at Kailua High School
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EFFECTIVE DATE:	Fall 2018

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Ko'olau region of O'ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

CATALOG DESCRIPTION

Introduction to fundamental principles and techniques in analysis of antioxidant activities in plants. Process of the scientific method.

Activities Required at Scheduled Times Other Than Class Times

Self-study, homework assignments, and field trips.

Requirement course satisfies

- Certificate of Achievement in Agripharmatech
- Certificate of Competence in Plant-Food Production and Technology

STUDENT LEARNING OUTCOMES

The student learning outcomes for the course:

- Perform literature research on special topics.
- Develop experimental procedures and conduct experiment.
- Operate lab equipment and follow safety procedures.
- Collect and analyze data.
- Describe the steps of the scientific method

COURSE TASKS, ASSESSMENTS AND GRADING

Course Tasks and assessments:

- Activities in classroom: lectures, discussions, and experiments.

- There are 5 quizzes.
- Field trips to WCC laboratory: equipment uses.
- Reading assignments: preparation for lab procedures, data analysis and a scientific poster.
- Preparation of a scientific poster to present the research results.

Grading

The total possible points:

<i>Quizzes</i>	<i>100</i>	<i>points</i>
<i>Performing Lab Procedures</i>	<i>50</i>	<i>points</i>
<i>Operating Equipment</i>	<i>50</i>	<i>points</i>
<i>Data Collection and Analysis</i>	<i>50</i>	<i>points</i>
<i>Poster preparation</i>	<i>100</i>	<i>points</i>
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Total	350	points

Grading is based on the percentage of total points earned. Final Grades will be assigned as follows:

- A - - - 90% or above in total points.
- B - - - 80-89% of total points.
- C - - - 70-79% of total points.
- D - - - 60-69% of total points.
- F - - - Below 60% of total points

I (incomplete) grade is given at the instructor's option when a student has failed to complete a small part of a course because of circumstances beyond his or her control. It is **your responsibility** to contact the instructor to make up the incomplete work with a minimum level (or better) of achievement. Failure to satisfactorily make up incomplete work within the appropriate time period will result in a grade change for "I" to the contingency grade identified by the instructor.

LEARNING RESOURCES

- Course materials: <https://laulima.hawaii.edu/>
- <https://www.ncbi.nlm.nih.gov/pubmed/>

DISABILITIES ACCOMMODATIONS

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale 'Ākoakoa 213 for more information.

TITLE IX

Title IX prohibits discrimination on the basis of sex in education programs and activities that receive federal financial assistance. Specifically, Title IX prohibits sex discrimination; sexual harassment and gender-based harassment, including harassment based on actual or perceived

sex, gender, sexual orientation, gender identity, or gender expression; sexual assault; sexual exploitation; domestic violence; dating violence; and stalking. For more information regarding your rights under Title IX, please visit: https://windward.hawaii.edu/Title_IX/.

Windward Community College is committed to the pursuit of equal education. If you or someone you know has experienced sex discrimination or gender-based violence, Windward CC has resources to support you. To speak with someone confidentially, contact Karla Silva-Park, Mental Health Counselor, at 808-235-7468 or karlas@hawaii.edu or Kaahu Alo, Designated Confidential Advocate for Students, at 808-235-7354 or kaahualo@hawaii.edu. To make a formal report, contact the Title IX Coordinator at 808-235-7393 or wcctix@hawaii.edu.

ACADEMIC INTEGRITY

Work submitted by a student must be the student's own work. The work of others should be explicitly marked, such as through use of quotes or summarizing with reference to the original author.

Students can upload papers to <http://www.TurnItIn.com> to have papers checked for authenticity, highlighting where the paper potentially fails to appropriately reference sources.

In this class, students who commit academic dishonesty, cheating or plagiarism will have the following consequence(s): Students will receive a failing grade for plagiarized assignments. All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

ALTERNATE CONTACT INFORMATION

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

Location: Alakai 121
Phone: 808-235-7422
Email: wcaa@hawaii.edu

CLASS SCHEDULE

10/15/2018 - 12/14/2018

Week	Lecture/Lab topics
1	Introduction and Literature Research
2	Literature research and experimental design
3	Preparation of plant extracts and field trips
4	Assay of antioxidant activities
5	Assay of antioxidant activities
6	Assay of antioxidant activities
7	Data collection and result analysis
8	Poster preparation
9	Final exam: Poster Presentation