



UNIVERSITY of HAWAII®  
**WINDWARD**  
COMMUNITY COLLEGE

## **AG 152 Orchid Culture**

3 Credits (CRN 64143)

MW, 8:30 – 9:45 AM, Hale Imiloa 101

**INSTRUCTOR:** Hongwei Li, PhD  
**OFFICE:** Hale Imiloa 107  
**OFFICE HOURS:** Monday 10:00 – 11:00 am  
Meet in-person or via Zoom by appointment  
**TELEPHONE:** (808) 236-9104  
**EMAIL:** hli@hawaii.edu  
**EFFECTIVE DATE:** Spring 2023

### **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**

An extensive study of orchid identification, breeding, growth, and tissue culture. Students are required to write a research paper or provide a power point presentation and active participation in orchid societies.

### **Activities Required at Scheduled Times Other Than Class Times**

Self-study, homework assignments, field trip and orchid care.

### **Requirement course satisfies**

- DB for AA in Liberal Arts
- DB for AS in Natural Science
- Certificate of Achievement in Agripharmatech
- Certificate of Competence in Plant-Food Production and Technology

### **STUDENT LEARNING OUTCOMES**

The student learning outcomes for the course:

- Identify orchid species, hybrids and trace their pedigrees.
- Provide cultural requirements for each genus, including temperature, light intensity, humidity, watering, fertilizing, media composition, pest/disease control and repotting.
- Perform traditional and *in vitro* propagations.

- Perform orchid breeding and discuss its economic importance.
- Conduct literature or experimental research and submit research paper.

## COURSE TASKS

- Read and review assigned chapters in the textbooks and other lecture materials.
- Complete homework assignments, quizzes, and exams.
- Perform literature research for a topic presentation.

## ASSESSMENT TASKS AND GRADING

- Quizzes/Assignments: Weekly quizzes/assignment will be given on the Lulima class site every Wednesday.
- Exams: there will be two exams (1 midterms and 1 final) during the semester. Exams will consist of multiple choices, true/false, fill in the blank, matching and short answer questions.
  - *Make-up exam: will be permitted only by the instructor upon consideration of the evidence justifying the absence presented by the student.*
- Orchid Care:
  - Pick an orchid plant and take care of it through the semester;
  - Give an oral presentation about the biology and cultivation of the orchid.
- A Field trip: choose one of the followings and submit a report.
  - Attend a General Member Meeting organized by Honolulu Orchid Society.
  - Visit a community orchid show.
  - Visit a local nursery: prepare and submit a report.

### Grading

The total possible points:

<i>Weekly Quizzes</i>	<i>150</i>	<i>points</i>
<i>Exams (2)</i>	<i>200</i>	<i>points</i>
<i>Orchid Care</i>	<i>100</i>	<i>points</i>
<i>Field Trip Report</i>	<i>50</i>	<i>points</i>

---

Total	500	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

- Laulima class site: <https://laulima.hawaii.edu/>
- American Orchid Society: <http://www.aos.org/>
- Honolulu Orchid Society: <https://www.honoluluorchidsociety.org/>

## 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 Accessibility Counselor to discuss reasonable accommodations that will help you succeed in this class. Roy Inouye can be reached at (808) 235-7448, [royinouye@hawaii.edu](mailto:royinouye@hawaii.edu), or you may stop by Hale Kāko‘o 106 for more information.

## SEX DISCRIMINATION AND GENDER-BASED VIOLENCE RESOURCES (TITLE IX)

### SEX DISCRIMINATION AND GENDER-BASED VIOLENCE RESOURCES (TITLE IX)

Windward Community College is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking.

If you or someone you know is experiencing any of these, WCC has staff and resources to support and assist you. To report an incident of sex discrimination or gender-based violence, as well as receive information and support, please contact one of the following:

Jojo Miller, Confidential Advocate

Phone: (808) 348-0663

Email: [advocate@hawaii.edu](mailto:advocate@hawaii.edu)

Office: Hale Kāko‘o 110

Desrae Kahale, Mental Health Counselor & Confidential Resource

Phone: (808) 235-7393

Email: [dkahale3@hawaii.edu](mailto:dkahale3@hawaii.edu)

Office: Hale Kāko‘o 101

Karen Cho, Deputy Title IX Coordinator

Phone: (808) 235-7404

Email: [kcho@hawaii.edu](mailto:kcho@hawaii.edu)

Office: Hale ‘Alaka‘i 120

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need.

For more information regarding sex discrimination and gender-based violence, the University's Title IX resources and the University's Policy, Interim EP 1.204, go to [manoa.hawaii.edu/titleix/](http://manoa.hawaii.edu/titleix/)

## 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: [wccaa@hawaii.edu](mailto:wccaa@hawaii.edu)

## CLASS SCHEDULE

Time	Topics
Week 1	Course introduction and the beauty of orchids General botany
Week 2	General botany
Week 3	Characteristics of orchids
Week 4	Characteristics of orchids
Week 5	Orchid mycorrhizal associations
Week 6	Orchid pollination
Week 7	Classification and nomenclature of orchids Most popular orchid genera
Week 8	Orchid genetics and pedigrees of hybrids
<b>Week 9</b>	<b>Midterm Exam</b> (March 6, in class) Orchid micropropagation: Principles and techniques of plant tissue culture
<b>Week 10</b>	<b>Spring Recess</b>
Week 11	Orchid micropropagation: medium preparation Orchid micropropagation: seed germination
Week 12	Orchid micropropagation: flower buds and stem nodes
Week 13	Orchid care and cultivation: watering, fertilizing, light, temperature, and humidity; tools, equipment and growth media.
Week 14	Orchid care and cultivation: preparation of potting mix and orchid repotting Traditional propagation and production of quality plant materials.
Week 15	Control of orchid pests and diseases
Week 16	Evolution, ecology and conservation of orchids
Week 17	Oral presentation <b>Final Exam</b> (May 10, 8:30-10:30 am)

(Note: the class schedule is subject to change at the discretion of the instructor)