AG 152   Orchid Culture
3 credits
T, Th; 10 am – 1:10 pm, Hale Imiloa 101

INSTRUCTOR:    Ingelia White Ph.D
OFFICE:        Hale Imiloa 102
OFFICE HOURS:  T, Th; 9:00 am – 10:00 am, and after 2:00 pm
TELEPHONE:     236 - 9102
EFFECTIVE DATE: Summer, 2008

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College is committed to excellence in the liberal arts and career development; we support and challenge individuals to develop skills, fulfill their potential, enrich their lives, and become contributing, culturally aware members of our community.

CATALOG DESCRIPTION

An extensive study of orchid identification, breeding, growth and culture. Students are required to write a 10 pages research report (3 hrs. lect.)

Activities Required at Scheduled Times Other Than Class Times

Field trips to HOS (Honolulu Orchid Society) monthly meetings. These are optional activities that you can earn some extra credits. You will learn various orchid growing techniques presented by orchid speakers and to see orchid species and hybrids presented by the HOS members.

STUDENT LEARNING OUTCOMES

The student learning outcomes for the course are:
1. Identify orchid species, hybrids and trace their pedigrees
2. Provide cultural requirements for each genus, including temperature, light intensity, humidity, watering, fertilizing, media composition, pest/disease control and repotting
3. Perform traditional and in vitro propagation techniques
4. Perform orchid breeding and discuss its economic importance
5. Conduct research and submit a research paper

COURSE CONTENT

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<tr>
<th>Concept or Topics:</th>
<th>Skills or Competencies: you will be able to:</th>
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<tr>
<td>1. Orchid classification. Terminology: generative and vegetative parts</td>
<td>1. Identify orchid species</td>
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<td>2. Growth and culture Orchid pests and diseases</td>
<td>2. Grow orchids well and stimulate them to produce lots of flowers</td>
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3. Propagation techniques (traditional and tissue cultures)
4. Genetics, molecular genetics and breeding

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**COURSE TASKS**

1. **Division of time**
   About 60% of classroom time will be spent on lectures, video and demonstration; The other 40% will be on field/lab works in the climate-controlled greenhouse, medicinal garden, the Tissue Culture Lab and during the field trip.

2. **Reading**
   You will be expected to read chapters in the textbook prior to lectures, research readings in preparation for your research reports. Hand-outs will be provided.

3. **Participation**
   You are expected to participate fully in homework, fieldwork and lab assignments.

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**ASSESSMENT TASKS AND GRADING**

Class lectures, assigned readings, lab exercises and field trips constitute fundamental knowledge you need in order to identify orchid species correctly, to grow and maintain orchid culture, to produce seedlings and clones that are free of viral diseases and to create excellent hybrids. Method of Grading:

- Exams (midterm and final) 200 points
- Research project and class presentation 100 points
- Field trip and report 50 points
- Extra curricular activities 50 points

Total 400 points

Letter grades will be assigned as follows:

- **A** - - - 90% or above in total points.
- **B** - - - 80-89% of total points.
- **C** - - - 65-79% of total points.
- **D** - - - 55-64% of total points.
- **F** - - - Below 55% of total points; or incomplete official withdrawal from course.

**I** - - - Incomplete; given at the **INSTRUCTOR'S OPTION** when you are unable to complete a small part of the course because of circumstances beyond your control. It is **your responsibility** to make up 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 (see catalog).

**CR** - - - 65% or above in total points; you must indicate the intent to take the course as **CR/NC** in writing by July 22, 2008

**NC** - - - Below 65% of total points;

**N** - - - **NOT GIVEN BY THIS INSTRUCTOR EXCEPT UNDER EXTREMELY RARE CIRCUMSTANCES** (e.g., documented serious illness or emergency that prevents you from officially withdrawing from the course); never used as an alternative for an “F” grade;

**W** - - - Last day of official withdrawal (see catalog).
LEARNING RESOURCES

- Hand-outs

DISABILITIES ACCOMMODATION STATEMENT

*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, leinke@hawaii.edu, or you may stop by Hale 'Akoakoa 213 for more information.*
Course Schedule:

Course: AG 52/152 Orchid Culture
Instructor: Ingelia White Ph.D.
Office: Hale Imiloa 102
Tel: 236 – 9102
E-mail: ingelia@hawaii.edu
Semester: Second Summer session (July 8 – August 14, 2008)

July 8  Introduction (revitalizing interest in orchids)
Terminology: generative and vegetative parts
July 9  Field trip to HOS monthly meeting (optional, extra credit)
July 10 Orchard classifications (traditional and modern)
July 15 Sub family Dendrobioid, Tribe Vandeeae
Sub fam Epidendroid, Tribe Epidendreae
Sub fam Cypripedioideae, Tribe Cypripediae
Sub fam Dendrobioid, Tribe Dendrobieae
Sub fam Cymbidioid, Tribe Cymbidieae
July 17 Traditional propagation (hands-on)
Growth and culture (hands-on)
Orchid pests and diseases
July 22 Practice identification and/or field trip
July 24 Midterm and student presentations
July 29 In vitro propagation (video and lecture/demo)
Transplanting from flasks (hands-on)
July 31 Media preparation (lab work)
Seed, embryo, ovulary cultures (hands-on)
August 5 Meristem culture (hands-on)
Inflorescence, stem cultures (hands-on)
August 7 Genetics
Orchid breeding
August 12 Orchid molecular genetic study
Student presentations
August 13 Field trip to HOS monthly meeting (optional, extra credit)
August 14 Final exam