

**Botany 160 lecture**  
**Tropical Plant Identification CRN 60133**

3 units Hale 'Imiloa 101

MW 8:30 – 9:45 pm

**INSTRUCTOR:** Teena Michael PhD  
**OFFICE:** Hale 'Imiloa 107  
**OFFICE HOURS:** T & R and by appointment  
**TELEPHONE:** (808) 236-9104 EMAIL: teena@hawaii.edu  
**EFFECTIVE DATE:** Fall 2015

**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 O'ahu's Ko'olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.*

**CATALOG DESCRIPTION**

Non-technical course in identification of common plants of the tropics, including native and introduced flora.

**Activities Required at Scheduled Times Other than Class Times**

1. Read assigned chapters prior to class sessions
2. Conduct a plant identification research project and provide a class presentation
3. Field trips (submit field trip reports and prepare herbarium)
4. Extra curricular activities (i.e. plant identification for WCC web, planting/maintaining medicinal garden at the Bioprocessing Medicinal Garden Complex, etc.)

**REQUIREMENT COURSE SATISFIES:**

AT WCC: (<http://windward.hawaii.edu/Courses/BOT130/>)

- [Associate in Arts - Biological Sciences \(DB\)](#)
- [Associate in Arts - Natural Sciences Lab \(DY\)](#)
- CA Agripharmatech: Ethnopharmacognosy (Elective)  
([http://windward.hawaii.edu/Academics/Agripharmatech\\_CA/](http://windward.hawaii.edu/Academics/Agripharmatech_CA/))

**STUDENT LEARNING OUTCOMES**

1. Operate dissecting microscopes
2. Recognize unique vegetative and generative characteristics of plant families
3. Prepare herbaria
4. Proficiently use manuals, flora and monographs to identify plants
5. Experience in identifying plants

## COURSE TASKS

1. Describe and integrate basic information related to plants of Hawaii and Introduced plants presented in lectures, handouts, lab practicum and field trips.
2. Demonstrate the ability to identify basic vegetative and reproductive structures of the plants and provide common and scientific names.
3. Use appropriate techniques to operate a dissecting microscope, collect and prepare plant specimens for herbarium.
4. Observe plants in their natural settings during field trips.

## ASSESSMENT TASKS AND GRADING

Class lectures, assigned readings, lab exercises and field trips constitute fundamental knowledge you need in order to identify plants correctly.

*Add your work to Drop Box of Laulima.*

Make-up for exams is permitted for emergencies or illness accompanied with a doctor's note; and must be completed within one week of the scheduled exam date. *There are no make-ups for the Final Exam!*

### Grades

Exams (3 @ 100 points each)	300 points
Field trip report & herbarium	75
Research project & presentation	50
<u>Extra curricular activities</u>	<u>50</u>
	<b>475 points</b>

### Service Learning

I encourage you to *volunteer* at a Hawai'ian/Restoration site as part of Service Learning. Full participation (20 hours/semester) will result in an A grade for one exam (but you must take the exam and earn a C or better) as well as an opportunity to apply theory to practice and contribute to the perpetuation of the sites and all associated with it.

<http://servicelearning.socialsciences.hawaii.edu/pages/mina.html>

### Grading

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

- A 90 - 100%
- B 80 - 89%
- C 70 - 79%
- D 60 - 69%
- F 0 - 59%

I (incomplete), given at the INSTRUCTOR'S DISCRETION 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 from "I" to the contingency grade identified by the instructor (see catalog).

CR (credit), 60% or above in total points. See catalog for specifics and calendar for dates. NC (no credit) will be assigned for a grade below 60% of total points. The NC grade will not be used as an alternative grade for an "F". Last day to withdraw with "W" grade is October 30, 2015.

**LEARNING RESOURCES**

1. Murrell, Z.E. Vascular Plant Taxonomy. Sixth edition. Kendall/Hunt Pub. Company.
2. Harrington, H.D. How to Identify Plants. Ohio University Press.
3. <http://www.wcc.hawaii.edu/facstaff/white-i/plantID.html>  
<http://www.wcc.hawaii.edu/facstaff/white-i/medgarden.html>

**Additional Information****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, [lemke@hawaii.edu](mailto:lemke@hawaii.edu), or you may stop by Hale 'Akoakoa 213 for more information.*

**Nondiscrimination and Affirmative Action**

*The University of Hawaii is committed to a policy of non-discrimination on the basis of race, sex, age, religion, color, national origin, ancestry, disability, marital status, arrest and court record, sexual orientation, or veteran status in all of its programs, policies, procedures, or practices.*

*This policy covers admission and access to, participation, treatment and employment in University program and activities.*

**Fall 2015 Botany 160 Lecture SCHEDULE**

Date	Lecture Topic	Textbook
<b>Aug 24</b>	Introduction to Class & Classification!	Harrington
<b>26</b>	How are plants classified? What is evolution?	
<b>31</b>	Classification, common names & scientific names. What is a key?	
<b>Sept 2</b>	Planting, maintaining medicinal garden at BMGC	
<b>7</b>	<i>HOLIDAY</i>	
<b>9</b>	FLOWERS terms and diversity	
<b>14</b>	Calyx, corolla, stamens, pistils & <i>practicum</i>	
<b>16</b>	Inflorescence terms and diversity	
<b>21</b>	Inflorescence terms and diversity	
<b>23</b>	Plant practicum & identification using floras	
<b>28</b>	<b>EXAM 1 Generative terms and identification</b>	
<b>30</b>	Terms relative to the stem	Harrington
<b>Oct 5</b>	Terms relative to the leaves. Practicum and plant ID exercise	
<b>7</b>	Leaf shapes. Practicum, plant ID (using floras)	
<b>12</b>	Practicum including Flowers to Seeds (Fruit)	
<b>14</b>	Continued practicum and plant ID	
<b>19</b>	Leaf margins. Practicum and plant ID	
<b>21</b>	Leaf margins and venation & practicum	
<b>26</b>	<b>EXAM 2 Vegetative terms and identification</b>	
<b>28</b>	Ferns and fern allies	Murrell
<b>Nov 2</b>	Gymnosperms. Plant ID practice (using manuals & floras)	
<b>4</b>	Magnoliidae. Rosidae 1.	
<b>9</b>	Field trip	
<b>11</b>	<i>HOLIDAY</i>	
<b>16</b>	Asteridae I & II, Dilleniidae & class presentation	Murrell
<b>18</b>	Caryophyllidae, Hamamelidae & class presentation	
<b>23</b>	Planting, maintaining medicinal garden at BMGC	
<b>25</b>	Class presentation & plant identification	
<b>30</b>	Plant identification and herbarium	
<b>Dec 2</b>	Monocot I & class presentation	
<b>7</b>	Monocot 2 & class presentation	
<b>9</b>	Saving species through Systematics, Review & Pa'ina	
<b>16</b>	<b>FINAL EXAM 8:30-10:30</b>	

*Note: The order of the topics will remain although the schedule may be modified as we proceed. I will announce any changes ahead of time.*

*Have a great semester!*