

**BOT 105 Ethnobotany**  
**3 credits**  
**MW 2:30 pm – 3:45 pm (63412) Imiloa 101**

**INSTRUCTOR:** Teena Michael PhD  
**OFFICE:** Hale 'Imiloa 107  
**OFFICE HOURS:** T & R 2:00 to 3:30, 4:00 to 5:30 and by appointment  
**TELEPHONE:** 236 – 9104 Email: teena@hawaii.edu  
**EFFECTIVE DATE:** Spring 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**

The scientific study of the interaction between human culture and plants, including the interrelationship of botany, socio-economics, belief systems and history that have shaped the cultural uses of plants in Hawaii, as well as Asia and/or the Pacific. Lecture/field work/field trip course with service-learning option (3 hrs. lect).

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

1. Read assigned chapter or hand-outs prior to class sessions
2. Field trips, field work and/or service learning
3. Write field trip report and/or service learning report
4. Extra curricular activities (will be discussed on the first day of class)
5. Computer and internet access
6. Homework assignments

**REQUIREMENT COURSE SATISFIES:**

AT WCC: (<http://windward.hawaii.edu/Courses/BOT105/>)

- [Associate in Arts - Biological Sciences \(DB\)](#)
- [Associate in Arts - Natural Sciences Lab \(DY\)](#)
- CA Agripharmatech: Ethnopharmacognosy (Elective)
- UHM (HAP focus)

**STUDENT LEARNING OUTCOMES**

1. Identify plants of major importance in various aspects of Hawaiian, Asian and Pacific Islands cultures.
2. Utilize the plants for food, medicine, and other material goods.

## COURSE TASKS

Multidisciplinary teaching and learning approach through lecture-discussions, videos, field work, field trips, guest speakers, research presentations, and service learning.

### Research Project:

A project appropriate to the course must be researched and presented in the class by the student, using materials and techniques as nearly like the ancient Hawaiian's as possible. Judicious substitutions may be made and will, in some cases, be necessary. Actual plant specimen, or posters or finished products or cooking or lei making demonstration must be presented in the class.

*You can select the following topics:*

- Handcrafted wooden bowls or platters
- Fish nets and fishing implements
- Cordage and articles using cordage
- Implements for games and sports or agriculture
- Articles for clothing, sandals, rain cape etc.
- Food preparation (Hawaiian, Asian/Pacific Islander styles)
- Medicine preparation (Hawaiian, Asian/Pacific Islander styles)
- Plant bioproducts (fermented drink, teas etc.)
- Lei making, basketry etc.

### Service Learning:

Students are encouraged to participate in Service Learning during the semester. Participants will submit a journal and a final summary describing their experiences. Two hours per week of active participation for a ten-week period is required to perform field work, or lab work, or working with students and the community members under the supervision of a mentor.

Learning Objectives:

- Apply theory into practice in the lab/field
- Find and develop ways to solve problems encountered in or during the service
- Help to foster civic responsibility
- Understand the process of learning by “giving” (volunteering)

Activities:

- Participate in assigned activities regularly, promptly and responsibly (a minimum of 20 hours per semester)
- Keep a journal of your activities
- Discuss monthly the progress of your work with your mentor and instructor
- Submit a one page summary of student learning experiences / activities

Service learning guidelines:

- If you choose to volunteer for this service learning project, please see me during the first week of class to discuss your eligibility, to sign a contract, and Assumption of Risk and Release, and any other necessary documents.
- You are expected to conduct yourself in a responsible manner when you do your service in the classroom, laboratory, field and community.
- If you have problems or concern about your service in the community, you should talk to your on-site supervisor or instructor.
- The deadline for submitting your service learning summary and journal is the last day of class instruction.

*Have fun providing service and learning at the same time!*

## ASSESSMENT TASKS AND GRADING

### Evaluation

Competency in the subject matter of the course will be evaluated through in-class examinations covering materials discussed in class, hand-outs, and by satisfactory completion of a research or service learning project. Be prepared to respond to all readings, complete all assignments on-time.

### Grading

The grades are assigned as follow:

Lecture-discussion participation, attendance.....	25 points
Quiz 1: Morphological generative.....	100 points
Quiz 2: Morphological vegetative.....	100 points
Lecture Exam I (plant uses part 1).....	100 points
Lecture Exam II/final exam (plant uses part 2, non-cumulative).....	100 points
Field trip report .....	25 points
Garden work (BMGC) & planting.....	25 points
Extra-curricular activities.....	25 points
Research presentation or Service learning.....	25 points

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<b>Total</b>	<b>525 points</b>
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Grade scales:

A = 90 – 100% of total points

B = 80 – 89% of total points

C = 70 – 79% of total points

D = 60 – 69% of total points

F = less than 60% of total points

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. You must indicate an intent to take the course as CR/NC and audit options in writing by March 31, 2015 (see catalog). NC (no credit), below 60% or total points (see catalog). The NC grade will not be used as an alternative grade for an "F". Last day to withdrawal with "W" grade is March 31, 2015 (see catalog).

## LEARNING RESOURCES

### Required texts:

- Abbott, Isabella A. La'au Hawaii: Traditional Hawaiian Uses of Plants. Bishop Museum Press.
- Kraus, Beatrice H. Ethnobotany of Hawaii. University of Hawaii, Department of Botany, Manoa.
- White, Ingelia. Ethnopharmacognosy Series 1V: Pharmaceutical & Neutraceutical Values of Spanish Needle. Windward Community College

*Hand-outs will be distributed in class*

- Websites (Inge White PhD)  
[http://windward.hawaii.edu/people/Ingelia\\_White/](http://windward.hawaii.edu/people/Ingelia_White/)  
[http://windward.hawaii.edu/Academics/Agripharmatech\\_CA/](http://windward.hawaii.edu/Academics/Agripharmatech_CA/)

### **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.*

BOT 105: Ethnobotany of Hawaii

Instructor: Dr. Teena Michael

Spring 2015

## Course Schedule

WEEKS	DAYS	TOPICS	READINGS
1	12-Jan	Introduction, origin & distribution (Overview of ethnobotany worldwide)	p.1-7 (K), p.ix-x(A)
	14-Jan	People & plants (HAP). Plant taxonomy generative: flowers	p.137-40 (A)
2	19-Jan	<b>Holiday</b>	
	21-Jan	Continued: Plant taxonomy generative.	234-39(K)
3	26-Jan	Field work in medicinal garden	
	28-Jan	The first Hawaiians & their plants. An evolving relationship to land & crops (Hawaii, Asia/Pacific)	p. 1-6 (A), video handouts
4	2-Feb	continued: plant tax generative (class practice)	
	4-Feb	Medicinal garden: Asian & Polynesian plant ID, plant tax generative	
5	9-Feb	Plants as the basis for civilization. Modern day ethnobotany History of plant science (agriculture from Middle East, China, India to United States) (HAP)	p.xi-xii (A) handouts
	11-Feb	Plant tax generative (class practice). Cultural uses of algae, kiawe, klu, arrowroot, awa, ohe across HAP	handouts p. 8-34 (K), Ch. 3 (A)
	16-Feb	<b>Holiday</b>	
6	18-Feb	<b>Quiz 1: morphological generative</b> Religious dimension of Hawaii, Asia/Pacific	handouts
7	23-Feb	Religious images & ceremonies. Hula & music Plant tax vegetative	p. 113-117 (A) handouts
	25-Feb	Ecological, economic concerns in ethnobotany, conservation & development (HAP). Continued: plant tax vegetative (class practice)	Ch. 2 (A) handouts
8	2-Mar	Hunting, gathering & haute cuisine. Food plants from aquatic sources (HAP). Plant tax vegetative (class practice)	Ch. 6 (A) handout
	4-Mar	Cultural uses of banana, breadfruit, berries, calabash, coconut, coffee (HAP). Plant tax vegetative (class practice)	p. 35-77 (K) P. 36-37 (A)
9	<b>9-Mar</b>	<b>Quiz 2: morphological vegetative</b> Cultural uses of ferns, gingers, gourds (HAP)	Ch. 5 (A), hand-out
	11-Mar	Cultural uses of guava, hau, ironwood, kamani, koa, kou, cotton, kukui, lehua (HAP)	p. 73-131 (K)
10	16-Mar	Medicine & healing (Hawaii/Asia/Pacific)	Video, hand-out, Ch. 13 (A)

	<b>18-Mar Exam 1: include all the above materials</b>	
	Food transport, preparation, storage across (HAP)	Ch. 12 (A)
	23 & 25 March <b>Holiday</b>	
11	30-Mar Personal adornment, leisure, lei making (HAP)	Ch., 17 (A), video
	1-Apr <b>No class: Field trip (Ho'omaluhewa Park or Oahu Market)</b>	
12	6-Apr Cultural uses of mamaki, mamane, mango, milo, moa, mulberry, noni, olona (HAP)	p. 145-177 (K) P.59-61, 99 (A)
	8-Apr Pandanus, papaya, pineapple, sweet potatoes (HAP)	p.178-197 (K), p.69-76 (A)
13	13-Apr Clothing/tapa, indigenous textiles. Preparing international dishes (HAP)	Ch. 7 (A)
	15-Apr Cordage for all occasions (HAP), sandalwood, sugar cane and tamarind	Ch. 8, p.41-41, 132 (A), p. 198-210 (K)
14	20-Apr The staple crops kalo and uala (HAP)	Ch. 4 (A)
	Class presentations 1	
	22-Apr Canoes & fishing tools (HAP), taro, ti, yams	Ch. 11 (A)
	Class presentations 2	p. 211-226 (K)
15	27-Apr Fishing implements, Changes in society & plant use after 1820 in Hawaii, Ethic and indigenous property rights (HAP)	p. 83-86, Ch. 14 (A) p. 131-136 (A)
	29-Apr Class presentations 3	
16	4-May Class presentations 4	
	6-May Class presentations 5	
17	<b>13-May Exam 2 (Final Exam): materials presented after exam 1</b>	
	2:30-4:30	