

BOT 105 Ethnobotany
3 credits
M 1:30 pm – 2:45 pm & W 12:50 –2:05
(64445) Science Center Kailua High School

INSTRUCTOR: Teena Michael PhD
OFFICE: Hale 'Imiloa 118
OFFICE HOURS: W 2:05 to 3:05 and other times by appointment
CONTACT: Email: teena@hawaii.edu
EFFECTIVE DATE: Spring 2017

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. lecture).

Activities Required at Scheduled Times Other Than Class Times

1. Read assigned chapter or handouts 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 (when possible), presentations and finished products or cooking or lei making demonstration must be presented in the class.

You can select from 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 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*	25 points
Service Learning* ** To be discussed in class!	

Total 525 points

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 April 3, 2017 (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 April 3, 2017 (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/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, 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.

Spring 2017 Botany 105 Lecture SCHEDULE

Date	Lecture Topic	READINGS Chapter(s)
Jan 9	Introduction, origin & distribution (overview of ethnobotany worldwide) & Class!	pp.1-7 (K), pp. ix-x(A)
11	People & plants (HAP). Plant taxonomy generative: flowers & fruit	pp.137-140 (A)
16	HOLIDAY	
18	Plant taxonomy generative: flowers & fruit	pp. 234-239 (K)
23	Plant taxonomy generative: flowers & fruit (class practice)	pp. 234-239 (K)
25	Field work in medicinal garden	
30	The first Hawaiians & their plants. An evolving relationship to land & crops (Hawaii, Asia/Pacific)	pp. 1-6 (A), video handouts
Feb 1	The first Hawaiians & their plants. An evolving relationship to land & crops (Hawaii, Asia/Pacific) Continued	pp. 1-6 (A), video handouts
6	First Hawaiians continued & plant taxonomy generative (class practice)	pp. 1-6 (A)
	The staple crops kalo and uala (HAP) (Medicinal garden: Asian & Polynesian ID)	Ch. 4 (A)
8	Plants as the basis for civilization. Modern day ethnobotany, History of plant science (agriculture from Middle East, China, India to United States) (HAP) Projects	pp. xi-xii (A) handouts
13	Cultural uses of algae, kiawe, klu, arrowroot, awa, ohe across HAP	handouts pp. 8-34 (K), Ch. 3 (A)
15	Cultural uses of algae, kiawe, klu, arrowroot, awa, ohe across HAP Continued Plant tax generative (class practice).	handouts pp. 8-34 (K), Ch. 3 (A)
20	HOLIDAY	
22	Quiz 1: Morphological Generative	
27	Religious dimension of Hawaii, Asia/Pacific	handouts
March 1	Religious dimension of Hawaii, Asia/Pacific Projects	handouts
6	Religious images & ceremonies. Hula & music HAP Plant tax vegetative	pp. 113-117 (A) handouts
8	Ecological, economic concerns in ethnobotany, conservation & development (HAP). Plant tax vegetative (class practice)	Ch. 2 (A) handouts
13	Hunting, gathering & haute cuisine. Food plants from aquatic sources (HAP).	Ch. 6 (A) handouts
15	Cultural uses of banana, breadfruit, berries, calabash, coconut, coffee (HAP). Plant tax vegetative (class practice)	pp. 35-77 (K) pp. 36-37 (A)
20	Cultural uses of ferns, gingers, gourds (HAP)	Ch. 5 (A), hand-out
22	Quiz 2: Morphological Vegetative	
27 & 29	HOLIDAY	
April 3	Cultural uses of guava, hau, ironwood, kamani, koa, kou, cotton, kukui, lehua (HAP)	pp. 73-131 (K)
5	TBD	
10	Medicine & healing (HAP)	Ch. 13 (A), video, hand-out
12	Medicine & healing (HAP) Continued & Projects	Ch. 13 (A), video, hand-out
17	Exam 1: include all the above materials!	
19	Food transport, preparation, storage across (HAP)	Ch. 12 (A)
24	Personal adornment, leisure, lei making (HAP) OR No class: Field trip (Ho'omaluhewa Park or Na Pohaku or Oahu Market)	Ch. 17 (A), video
26	Cultural uses of mamaki, mamane, mango, milo, moa, mulberry, noni, olona (HAP)	pp. 145-177 (K) pp. 59-61, 99 (A)
	Pandanus, papaya, pineapple, sweet potatoes (HAP) Projects	pp. 178-197 (K), pp. 69-76 (A)
May 1	Clothing/tapa, indigenous textiles. Preparing international dishes (HAP)	Ch. 7 (A)

	Cordage for all occasions (HAP), sandalwood, sugar cane and tamarind Projects	Ch. 8, pp. 41-41, 132 (A), pp. 198-210 (K)
3	Fishing implements, Changes in society & plant use after 1820 in Hawaii, Ethic and indigenous property rights (HAP)	pp. 83-86, Ch. 14 (A) pp. 131-136 (A)
10	FINAL EXAM 1:00-2:15 Part A	
15	FINAL EXAM 1:00-2:15 Part A	

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. Field trip and community service options will be destinations may be modified as we proceed!

Have a great semester