## **BOT 105 Ethnobotany**

3 credits

 $T_{R}$  11:30 am - 12:45 pm (63014)

**INSTRUCTOR:** Ingelia White Ph.D.

OFFICE: Imiloa 102

OFFICE HOURS:  $T_{r}R_{r}$ , 9:30 pm - 11:00 pm

TELEPHONE: 236 - 9102 EFFECTIVE DATE: Fall 2016

## 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).

Course satisfies: DS at WCC (AA in Liberal Arts and CA in Agripharmatech: Ethnopharmacognosy) and UHM (HAP focus)

## **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. Submit field trip report and/or service learning report
- 4. Extra curricular activities (will be discussed on the first day of class)
- 5. Internet access
- 6. Other homework assignments

## STUDENT LEARNING OUTCOMES

- 1. Identify plants of major importance in various aspects of Hawaiian, Asian and Pacific Islands cultures
- 2. Utilize 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.

A research (or service learning) project must be completed by each student, and presented in class.

## **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 Power Point 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 Island styles)
- Plant medicine (Hawaiian, Asian/Pacific Islander styles)
- Food pharmacy (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
Mid-term exam (plant uses part 1)	100 points
Final exam (plant uses part 2, non-cumulative)	.100 points
Field trip report	25 points
Garden work: weeding and planting (at BMGC)	25 points
Extra-curricular activities.	25 points
Class presentation or Service learning.	25 points

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 November 3, 2012 (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 withdraw without a "W (withdrawal)" grade is September 15, 2016. Last day to withdrawal with "W" grade is November 3, 2016 (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
- My websites:

http://windward.hawaii.edu/people/Ingelia\_White/ http://windward.hawaii.edu/Academics/Agripharmatech\_CA/

#### **Additional Information**

## **Nondiscrimination and Affirmative Action**

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, <a href="lemke@hawaii.edu">lemke@hawaii.edu</a>, or you may stop by Hale 'Akoakoa 213 for more information.

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. Ingelia White

Fall 2016

# **Course Schedule**

DAYS	TOPICS	READINGS
23-Aug	Introduction, origin & distribution (Overview of ethnobotany w	κp.1-7 (K), p.ix-x(A)
25-Aug	People & plants (HAP). Plant taxonomy generative: flowers	p.137-40 (A)
30-Aug	Holiday	
1-Sep	Continued: Plant taxonomy generative.	234-39(K)
6-Sep	Field work in medicinal garden	
8-Sep	No class (replacing Sept 7 food pharmacy pot luck party)	
13-Sep	The first Hawaiians & their plants. An evolving relationship to	l≀p. 1-6 (A), video
	& crops (Hawaii, Asia/Pacific)	handouts
15-Sep	Medicinal garden: Asian & Polynesian plant ID, plant tax gene	rative
20-Sep	Plants as the basis for civilization. Modern day ethnobotany	p.xi-xii (A)
	History of plant science (agriculture from Middle East, China, I	Ir handouts
	to United States) (HAP)	
22-Sep	Plant tax generative (class practice). Cultural uses of algae, ki	ia handouts
	arrowroot, awa, ohe across HAP	p. 8-34 (K), Ch. 3 (A)
29-Sep	Quiz 1: morphological generative	
	Religious dimension of Hawaii, Asia/Pacific	handouts
4-0ct	No class (replace w/ Ho'olaulea)	
6-Oct	Religious images & ceremonies. Hula & music	p. 113-117 (A)
	Plant tax vegetative	handouts
11-Oct	Ecological, economic concerns in ethnobotany, concervation	Ch. 2 (A)
	& development (HAP). Continued: plant tax vegetative (class	•
13-Oct	Hunting, gathering & haute cuisine. Food plants from aquatic	* *
	(HAP). Plant tax vegetative (class practice)	handout
18-Oct	Cultural uses of banana, breadfruit, berries, calabash, coconu	* *
	coffee (HAP). Plant tax vegetative (class practice)	P. 36-37 (A)
20-Oct	Quiz 2: morphological vegetative	GL 5 (A)
25.0.1	Cultural uses of ferns, gingers, gourds (HAP)	Ch. 5 (A), hand-out
25-Oct	Cultural uses of guava, hau, ironwood, kamani, koa, kou, cott	op. 73-131 (K)
27 Oct	kukui, lehua (HAP)	Video hand out Ch 12
27-Oct	Medicine & healing (Hawaii/Asia/Pacific)  Exam 1: include all the above materials	Video, hand-out, Ch. 13
1-Nov		Ch 12 (A)
3-Nov	Food transport, prepartaion, storage across (HAP) Personal adornment, leisure, lei making (HAP)	Ch. 12 (A)
3-Nov 8-Nov	Holiday	Ch., 17 (A), video
10-Nov	Cultural uses of mamaki, mamane, mango, milo, moa, mulber	rrn 145-177 (K)
10-1101	olona (HAP)	P.59-61, 99 (A)
15-Nov	Pandanus, papaya,pineapple, sweet potatoes (HAP)	p.178-197 (K), p.69-76
17-Nov	Clothing/tapa, indigenous textiles. Preparing international dish	
22-Nov	Cordage for all occasions (HAP), sandalwood, sugar cane and	
22 1101	coraage for an occasions (finally) sandamood, sagar cane and	p. 198-210 (K)
24-Nov	Holiday	p. 130 210 (K)
24-Nov	The staple crops kalo and uala (HAP)	Ch. 4 (A)
_ :	Class presentations 1	()
29-Nov	Canoes & fishing tools (HAP), taro, ti, yams	Ch. 11 (A)
	Class presentations 2	p. 211-226 (K)
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1-Dec	Fishing implements, Changes in society & plant use after 18	20 p. 83-86, Ch. 14 (A)
	Hawaii, Ethic and indegenous property rights (HAP)	p. 131-136 (A)
6-Dec	Class presentations 3	
8-Dec	Class presentations 4	

15-Dec Final Exam: materials presented after exam 1. Non cumu

ut, Ch. 13 (A)

), p.69-76 (A)

1, 132 (A),