BOT 105 Ethnobotany
3 credits
TTH 9:45 am – 11:00 am

INSTRUCTOR: Ingelia White Ph.D.
OFFICE: Imiloa 102
OFFICE HOURS: TTH 9:00 am – 9:45 am, 11:05 – 12:05 pm or by appointment
TELEPHONE: 236 - 9102
EFFECTIVE DATE: Fall 2009

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

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 ASC in Plant Biotechnology)
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. Write field trip report and/or service learning report
4. Extra curricular activities (Ho’olaulea, Career day, TechTalk)

STUDENT LEARNING OUTCOMES

You will be able to:
1. Identify plants of major importance in various aspects of Hawaiian, Asian and Pacific Island 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 or Service Learning Project
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 posters or finished products or cooking/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)
- 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.

**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, assigned text books and hand-outs, and by satisfactory completion of a research or service learning project.

**GRADING**

The grades are assigned as follow:

- Lecture-discussion participation, attendance… 50 points
- Quiz 1: Morphological vegetative………… 100 points
- Quiz 2: Morphological generative………… 100 points
- Lecture Exam I …………………………… 100 points
- Lecture Exam II (Final Exam)……………. 100 points
- Field trip reports (1)……………………….. 50 points
- Field work (campus garden)……………,,,,, 50 points
- Research presentation or Service learning… 50 points

Total 600 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 your 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/N in writing by the end of the 10th week of classes (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”.

W (withdrawal), Official withdrawal from the course after the third week and prior to the end of the 10th week of classes (see catalog).
LEARNING RESOURCES

Required texts:

Kraus, Beatrice H. Ethnobotany of Hawaii. University of Hawaii, Department of Botany, Manoa.
White, Ingelia. Ethnopharmacognosy Series 1

My websites:

• http://windward.hawaii.edu/Academics/ASC_Plant_Biotechnology.html
• http://www.wcc.hawaii.edu/facstaff/white-i/medgarden.html
• http://www.wcc.hawaii.edu/facstaff/white-i/plantID.html
Hand-outs will be distributed in class

Additional Information

Class assessment (knowledge survey) will be conducted at the beginning, middle, and at the end of semesters.

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, lemke@hawaii.edu, 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.*
# Course Schedule

<table>
<thead>
<tr>
<th>WEEKS</th>
<th>DAYS</th>
<th>TOPICS</th>
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<tbody>
<tr>
<td>1</td>
<td>25-Aug</td>
<td>Introduction, origin &amp; distribution (Overview of ethnobotany worldwide)</td>
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<tr>
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<td>27-Aug</td>
<td>People &amp; plants (Asia/Pacific &amp; Hawaii)</td>
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<td>2</td>
<td>1-Sep</td>
<td>Plant taxonomy vegetative: leaves, stems, roots. Field work in medicinal garden</td>
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<td>3-Sep</td>
<td>The first Hawaiians &amp; their plants An evolving relationship to land &amp; crops (Asia/Pacific &amp; Hawaii)</td>
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<td>3</td>
<td>8-Sep</td>
<td>Medicinal garden: Asian &amp; Polynesian plant ID continued: plant tax vegetative</td>
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<td>10-Sep</td>
<td>Plants as the basis for civilization Modern day ethnobotany History of plant science (agriculture from Middle East, China, India to United States)</td>
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<td>4</td>
<td>15-Sep</td>
<td>Quiz 1: morphological vegetative Plant taxonomy generative (flowers/fruits) Cultural uses of algae, kiawe, klu, arrowroot, awa, ohe across HAP continued: plant tax generative Religious dimension of Hawaii, Asia/Pacific Hula &amp; music continued: plant tax generative</td>
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<td>17-Sep</td>
<td>Ecological, economic concerns in ethnobotany, concervation &amp; development across Asia/Pacific &amp; Hawaii continued: plant tax generative</td>
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<td>22-Sep</td>
<td>Religious images &amp; ceremonies (Hawaii, Indonesia/Pacific Islands) Religious images &amp; ceremonies (Hawaii, Indonesia/Pacific Islands) Hula &amp; music continued: plant tax generative</td>
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<tr>
<td>5</td>
<td>24-Sep</td>
<td>Ecological, economic concerns in ethnobotany, concervation &amp; development across Asia/Pacific &amp; Hawaii continued: plant tax generative</td>
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<td>26-Sep</td>
<td>Ho'olaulea</td>
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<td>6</td>
<td>29-Sep</td>
<td>Quiz 2: morphological generative Hunting, gathering &amp; haute cuisine across Asia/Pacific &amp; Hawaii Food plants from aquatic sources (Asia &amp; Hawaii) Cultural uses of banana, breadfruit berries, calabash, coconut, coffee across Asia/Pacific &amp; Hawaii</td>
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<td>1-Oct</td>
<td>Field trip to Ho'omaluhia Botanical Garden (identifying plants of Hawaii, Polynesia, Melanesia, Philippines, Malaysia)</td>
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<tr>
<td>7</td>
<td>6-Oct</td>
<td>Field trip to Ho'omaluhia Botanical Garden (identifying plants of Hawaii, Polynesia, Melanesia, Philippines, Malaysia)</td>
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**READINGS**
- p.1-7 (K), p.ix-x(A) handouts
- Ch.1 (B/C), p.137-40 (A), handout
- p.132-36, 234-39(K) handouts
- p. 1-6 (A) handouts
- p.1-15(P), p.xi-xii (A) handouts
- Ch. 3 (A) handouts
- p. 113-117 (A) handouts
- p. 8-34 (K) handouts
- p. 141-157 (P) handouts
- Ch. 2 (A) handouts
- Ch. 3 (B/C) handout
- Ch. 6 (A) handouts
- p. 35-77 (K) handouts
- P. 36-37 (A) handouts
- Ch. 5 (A) handouts
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<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Text</th>
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<tbody>
<tr>
<td>8-Oct</td>
<td>Cultural uses of ferns, gingers, gourds guava, hau, ironwood, kamani, koa, kou, cotton, kukui, lehua across HAP</td>
<td>p. 73-131 (K) Video, handout</td>
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<tr>
<td>13-Oct</td>
<td>Medicine &amp; healing (Hawaii/Asia/Pacific) Ethnopharmacognosy Series 1</td>
<td>Ch. 13 (A), video (H. Auwae), Ch. 2 (B/C), handouts</td>
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<td>15-Oct</td>
<td><strong>Exam 1: include all the above materials</strong></td>
<td>Ch. 12 (A) handouts</td>
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<td>Food transport, prepartaion, storage across Asia/Pacific &amp; Hawaii</td>
<td>Ch. 12 (A) handouts</td>
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<td>Personal adornment, leisure, lei making (Pacific &amp; Hawaii)</td>
<td>Ch., 17 (A), video</td>
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<td>9</td>
<td>20-Oct Cultural uses of mamaki, mamane, mango milo, moa, mulberry, noni, olona across Asia/Pacific &amp; Hawaii</td>
<td>p. 145-177 (K) handouts</td>
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<tr>
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<td>22-Oct Cultural uses of pandanus, papaya, pineapple, sweet potatoes across HAP</td>
<td>p. 178-197 (K) handouts</td>
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<td>10</td>
<td>27-Oct No class, replacing Ho'olaulea</td>
<td>p. 25, 134 (A)</td>
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<td>11</td>
<td>3-Nov Cordage for all occasions across Asia/Pacific &amp; Hawaii</td>
<td>Ch. 8 (A) handouts</td>
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<td>5-Nov Cultural uses of sandalwood, sugar cane &amp; tamarind across Asia/Pacific &amp; Hawaii</td>
<td>p. 198-210 (K) handouts</td>
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<tr>
<td>12</td>
<td>10-Nov The staple crops kalo and uala across Asia/Pacific &amp; Hawaii</td>
<td>Ch. 4 (A) handouts</td>
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<td>(Service Learning presentation)</td>
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<td></td>
<td>12-Nov Canoes &amp; fishing tools across Asia/Pacific &amp; Hawaii</td>
<td>Ch. 11 (A) handouts</td>
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<td>(Service Learning presentation)</td>
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<tr>
<td>13</td>
<td>17-Nov Class presentations Fishing implements across Asia/Pacific &amp; Hawaii</td>
<td>p. 83-86 (A) handouts</td>
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<tr>
<td></td>
<td>19-Nov Cultural uses of taro, ti, yams across Asia/Pacific &amp; Hawaii Class presentations</td>
<td>p. 211-226 (K) handouts</td>
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<tr>
<td>14</td>
<td>24-Nov Field trip: or Class presentations</td>
<td>Ch. 14 (A) handouts</td>
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<td>15</td>
<td>1-Dec Class presentations</td>
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<td></td>
<td>3-Dec Potluck dishes (medicinal/nutritious orchid flowers)</td>
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<tr>
<td>16</td>
<td>8-Dec Changes in society &amp; plant use after 1820 in Hawaii Ethic and indigeneous property rights Class presentations</td>
<td>p. 131-136 (A) handouts</td>
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<tr>
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<td>10-Dec Class presentations and review</td>
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<tr>
<td>17</td>
<td><strong>17-Dec Exam 2: materials presented after exam 1</strong></td>
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