



UNIVERSITY of HAWAII®  
**WINDWARD**  
COMMUNITY COLLEGE

## **BOT 105 ETHNOBOTANY**

3 Credits (CRN 63355)  
WWW and Virtual Course  
DS, HAP, SF

**INSTRUCTOR:** Teena Michael PhD  
**OFFICE:** Hale Palanakila 142  
**OFFICE HOURS** Contact me for in-person meeting via email (response within 24 hrs)  
**Zoom contact for office hours and discussion times to be determined**

Teena Michael is inviting you to a scheduled Zoom meeting:

- Topic: Ethnobotany
- Time: This is a recurring meeting Meet anytime
- <https://hawaii.zoom.us/j/96337493650>
- Meeting ID: 963 3749 3650
- Passcode: Kinolau

**TELEPHONE:** (808) 236-9114  
**EMAIL (best contact):** [teena@hawaii.edu](mailto:teena@hawaii.edu)  
**EFFECTIVE DATE:** Fall 2022

### **WINDWARD COMMUNITY COLLEGE MISSION STATEMENT**

*'O keia ka wā kūpono e ho'onui ai ka 'ike me ka ho'omaopopo i kō Hawai'i mau ho'oilina waiwai. Aia nō ho'i ma ke Kulanui Kaiāulu o ke Ko'olau nā papahana hou o nā 'ike 'akeakamai a me nā hana no'eau. Me ke kuleana ko'iko'i e ho'ohiki ke Kulanui e kāko'o a e ho'okumu i ala e hiki kē kōkua i ka ho'onui 'ike a nā kānaka maoli. Na mākou nō e ho'olako, kāko'o a paipai i nā Ko'olau a kō O'ahu a'e me nā hana no'eau ākea, ka ho'ona'auao 'oihana a me ka ho'onui 'ike ma ke kaiāulu — hō'a'ano a e ho'oulu i nā haumāna i ka po'okela.*

*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 the Ko'olau region of O'ahu 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).

#### **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 Agripharimatech: Ethnopharmacognosy (Elective)

- UHM (HAP focus)

## Activities Required at Scheduled Times Other than Class Times

Read the presentations and text/OER resource chapter before ‘class’.

- 1) Do assignments including worksheets that are written in the style of the exams.
- 2) Complete Project development as described.
- 3) An outside of class zoom discussion will support learning and be guided by questions for those that can attend and/or questions sent to me ([teena@hawaii.edu](mailto:teena@hawaii.edu))!

## STUDENT LEARNING OUTCOMES

*As a result of taking this course, students can expect to attain the following outcomes:*

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

## COURSE TASKS and ASSESSMENT

Multidisciplinary teaching and learning approach through lecture presentations/videos, projects and research presentations as well as outside and service learning as possible due to the pandemic and the online class.

### Research Project and Presentation (50 points):

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 topics of Ethnobotany, including (but not limited to) 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)
- Healing in Hawaii versus Healing in Samoa or other Polynesian and/or Asian area
- Hula
- Plant bio products (fermented drink, teas etc.)
- Lei making, basketry
- Limu and Hawaiian culture...

Note! Your project can be on any topic listed in our schedule and presented at any time in our semester. Each of us will develop and record your presentation and I can both help you record (!) and post your presentation on our Lualima site for others to see/study/enjoy. Your projects become part of our content!

Note also that WEEK 14 lists topics with references that are for YOU to also consider choosing!

A second and smaller project (**25 points**) is focused on DIETY and KINOLAU. I would like to post these throughout our semester and will describe them in a short recording for our class. As with your major project, your findings become *part of our class*.

**Service Learning:**

Students are encouraged to participate in Service Learning during the semester as permitted during the pandemic. We have been invited to work with Bishop Museum Collections and this will be discussed in class. Students can volunteer at Bishop Museum in small groups M-R OR projects are also available to help with online projects eg. data entry and/or research for the [Bishop Museum Ethnobotany Database](#).

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 fieldwork, 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 a service learning project, please see me during the first 3 weeks 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.
- Options? So many! These are off campus.

<http://servicelearning.socialsciences.hawaii.edu/calendar/events.html>

**GRADING**

The grades are assigned as follow:

Assignments and Quizzes .....	100 points
Project GODS and Kinolau.....	25
Project Research and Presentation.....	50
Ethnobotanical Interview.....	25
Final essay on aspect(s) of HAP medicine.....	25
Exams (2).....	100
Final Exam.....	100

**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 (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 October 31, 2022 (see catalog).

\* See catalog for specifics and calendar for dates in general and for I grades and NC grades. Taking this class as Credit/No credit is an option.

## LEARNING RESOURCES

### Required texts Provided as PDFs:

- 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.

### Required text Purchase for \$0.99:

- Beckwith, Martha. Hawaiian Mythology Amazon kindle book for purchase (\$.99)!

**Hawaiian Mythology** Kindle Edition  
by Martha Warren Beckwith (Author)  
★★★★☆ 40 ratings

> See all 25 formats and editions

<b>Kindle</b> \$0.99 Claim your \$5 Kindle credit Read with Our Free App	<b>Hardcover</b> \$31.95 6 Used from \$20.97 7 New from \$31.95	<b>Paperback</b> \$17.97 2 Used from \$29.99 1 New from \$17.97
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THIS guide to the native mythology of Hawaii has grown out of a childhood and youth spent within sound of the hula drum at the foot of the domelike House of the Sun on the windy island of Maui. There, wandering along its rocky coast and sandy beaches, exploring its windward gorges, riding above the cliffs by moonlight when the surf was high or into the deep forests at midday, we were aware always of a life just out of reach of us latecomers but lived intensely by the kindly, generous race who had chanced so many centuries ago upon its shores.

Not before 1914 did the actual shaping of the work begin. The study covers, as any old Hawaiian will discover, less than half the story, but it may serve to start specific answers to the problems here raised and to distinguish the molding forces which have entered into the recasting of such traditional storytelling as has survived the first hundred years of foreign contact.

To the general student of mythology the number and length of proper names in an unfamiliar tongue may seem confusing. Hawaiian proper names are rarely made up of a single word but rather form a series of words recalling some incident or referring to some characteristic significant of the person or place designated.

### Optional:

White, Ingelia. Ethnopharmacognosy Series IV: Pharmaceutical & Neutraceutical Values of Spanish Needle. Windward Community College.

- 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/)

**Online sites!** I include 2 only of SO many including hands-on demonstrations for lei making and chanting...so do not be limited by what I list but—do see what YOU can learn from each.

Canoe Plants

<https://www.canoeplants.com>

Bishop Museum Ethnobotany Online Database

<http://data.bishopmuseum.org/ethnobotanydb/ethnobotany.php?b=list&o=1>

## LEARNING ACTIVITIES

- Join our zoom discussion group whenever possible
- Work with each other on worksheets (for example) and Projects
- Take time to apply what we are learning to your lives and to understanding the news in general—explore TED talks that deal with Ethnobotany
- Utilize WCC learning/student support services including **TRIO** for tutoring and Ka Piko below:

[Ka Piko Services](#) provides FREE academic and technical support to all WCC students. Our services are available both in-person and virtually (via Zoom). Our goals are to help students succeed academically and to become independent lifelong learners. We are staffed by friendly and knowledgeable peers who are ready to assist you!

- **Ka Piko Math Lab** provides assistance for all math courses offered at WCC, helping to improve students' understanding of important concepts and problem solving processes.
- **Ka Piko Writing Lab** provides assistance with any and all aspects of the writing process, including: brainstorming, research, MLA formatting and citations, drafting, and revising.
- **Ka Piko Student Tech. Support** can assist students with Google@UH, Laulima, MyUH, UH accounts, and can provide best-effort support for problems or questions with personal computers and other smart devices.
- **Success Connection Workshops**, weekly student success workshops, are also available.

Visit the Ka Piko webpage at [go.hawaii.edu/A42](http://go.hawaii.edu/A42) for more information about our services, to learn how to connect with our tutors and tech assistants, or to RSVP for a Success Connection Workshop. Contact the Ka Piko Coordinator, Scott Sutherland, at [scottjks@hawaii.edu](mailto:scottjks@hawaii.edu) if you have any questions.

## DISABILITIES ACCOMMODATIONS

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 Accessibility Counselor to discuss reasonable accommodations that will help you succeed in this class. Roy Inouye can be reached at (808) 235-7448, [royinouy@hawaii.edu](mailto:royinouy@hawaii.edu), or you may stop by Hale Kāko‘o 106 for more information.

## SEX DISCRIMINATION AND GENDER-BASED VIOLENCE RESOURCES (TITLE IX)

Windward Community College is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking. If you or someone you know is experiencing any of these, WCC has staff and resources to support and assist you. To report an incident of sex discrimination or gender-based violence, as well as receive information and support, please contact one of the following:

UH Confidential Advocate  
Phone: (808) 348-0663 Email: [Advocate@hawaii.edu](mailto:Advocate@hawaii.edu)

Karla K. Silva-Park, Title IX Coordinator  
Phone: (808) 235-7468

Email: [karlas@hawaii.edu](mailto:karlas@hawaii.edu) Office: Hale Kāko‘o 128

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need. For more information regarding sex discrimination and gender-based violence, the University’s Title IX resources and the University’s Policy, Interim EP 1.204, go to [manoa.hawaii.edu/titleix/](http://manoa.hawaii.edu/titleix/)

### **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.*

### **ALTERNATE CONTACT INFORMATION**

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

- Location: Alaka‘i 121. Phone: (808) 235-742

FALL 2022 SCHEDULE

Date	Lecture Topic	READINGS Chapter(s)
WEEK 1 8/22-28	Introduction to ourselves! To how/why people (and cultures) use plants. <i>Watch Voyagers and take notes...the Polynesians arrived...why did they leave home? What did they bring and why?</i>  <i>It is really very simple, neither animals nor people have consciousness. It is plants that have consciousness. Animals get consciousness by eating plants. -- Dale Pendell</i>	pp.1-7 (K), pp. ix-x(A)
WEEK 2 8/29-9/4	Introduction, origin & distribution (overview of ethnobotany worldwide) & Class! HAP! People & plants (HAP). Plant taxonomy generative: flowers & fruit Overview of ethnobotany worldwide! Coffee!  <i>The universe is full of magical things, patiently waiting for our wits to grow sharper." - Eden Philpotts</i>	pp.1-7 (K), pp. ix-x(A) pp.137-140 (A)
WEEK 3 9/5-11	Plant taxonomy generative: flowers & fruit (class practice) & Canoe Plants!  The coming of the Gods The first Hawaiians & their plants. An evolving relationship to land & crops (Hawaii, Asia/Pacific)	pp. 230-233 (K)  Beckwith pp. 1-6 (A)
WEEK 4 9/12-18	First Hawaiians continued & plant taxonomy generative (home practice)  The staple crops kalo and uala (HAP) (Medicinal garden: Asian & Polynesian ID)	pp. 1-6 (A)  Ch. 4 (A)
WEEK 5 9/19-25	Plants as the basis for civilization. Modern day ethnobotany, History of plant science (agriculture from Middle East, China, India to United States) (HAP) <i>Projects</i>	pp. xi-xii (A) handouts
WEEK 6 9/26-10/2	Cultural uses of algae! Food plants from aquatic sources (HAP).	Ch. 6 (A) pp. 8-34 (K), Ch. 3 (A)
WEEK 7 10/3-9	Cultural uses of kiawe, klu, arrowroot, awa, ohe across HAP Plant tax generative (class practice).	handouts pp. 8-34 (K), Ch. 3 (A)
WEEK 8 10/10-16	<b>Exam 1: Content from beginning and generative botany TBA</b> Religious dimension of Hawaii, Asia/Pacific	handouts Chs. 3, 13, 15, 16 (A)
WEEK 9 10/17-23	Religious dimension of Hawaii, Asia/Pacific <i>DIETIES and Kinolau Projects!</i> Plant tax vegetative Kalo and Uala and Uhi	handouts Beckwith Ch. 4 (A)
WEEK 10 10/24-30	Images & ceremonies. Hula & music HAP <i>DIETIES and Kinolau Projects!</i>	pp. 113-117 (A) handouts
WEEK 11 10/31-11/6	Ecological, economic concerns in ethnobotany, conservation & development (HAP). Plant tax vegetative (class practice) <i>DIETIES and Kinolau Projects!</i>	Ch. 2 (A) handouts
WEEK 12 11/7-13	Clothing/tapa, indigenous textiles. (Preparing international dishes) (HAP) <i>Projects! DIETIES and Kinolau Projects!</i> <b>Exam 2: Content from beginning and vegetative botany TBA</b>	Ch. 7 (A)
WEEK 13 11/14-	Cultural uses of banana, breadfruit, berries, calabash, coconut (HAP). <i>Projects! DIETIES and Kinolau Projects!</i>	pp. 73-131 (K)



20	Cultural uses of guava, hau, ironwood, kamani, koa, kou, cotton, kukui, lehua (HAP)	pp. 73-131 (K)
<b>WEEK 14</b> 11/21-27	Cultural uses of gourds (HAP) & <i>HOLIDAY</i> NOTE! Some topics will be <b>covered in projects</b> and are listed here for scope and reference: Food transport, preparation, storage across (HAP) Personal adornment, leisure, lei making (HAP) Cultural uses of ferns, gingers Cultural uses of mamaki, mamane, mango, milo, moa, mulberry, noni, olona (HAP)  <i>Pandanus</i> , papaya, pineapple, sweet potatoes (HAP)	Ch. 5 (A), hand-out  Ch. 12 (A) Ch. 17 (A), video pp. 145-177 (K) pp. 59-61, 99 (A) pp. 178-197 (K), pp. 69-76 (A)
<b>WEEK 15</b> 11/28-12/4	Medicine & healing (HAP) Begin Essay for Final comparing Hawaiian and Polynesian Medicine	Ch. 13 (A), video, hand-out, Art Whistler Polynesian Medicine
<b>Week 16</b> 12/5-8	Cordage for all occasions (HAP), sandalwood, sugar cane and tamarind Projects and Kinolau <i>Projects!</i>  Fishing implements, Changes in society & plant use after 1820 in Hawaii, Ethnic and indigenous property rights (HAP) Projects and Kinolau <i>Projects!</i>	Ch. 8, pp. 41-41, 132 (A), pp. 198-210 (K)  pp. 83-86, Ch. 14 (A) pp. 131-136 (A)
<b>12/10-16 TBA</b>	<b>FINAL EXAM</b>	

*Note: PROJECTS will be developed and presented throughout the semester and scheduled in areas of student interest. 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*