



## BOT 105 ETHNOBOTANY

3 Credits (CRN 61230)  
WWW and Virtual Course  
DS, \*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
- **DS** Diversity of social science
- **SF** Our course is [sustainability focused](#) and so is part of a growing system wide effort to teach students ecological literacy and make the University of Hawaii system a leader in sustainability. These courses are not a graduation requirement, but the designation can steer students towards courses that address issues of sustainability. Sustainability designated courses encourage students to learn about the social, cultural, economic, political, scientific, and artistic approaches to sustainability, recognizing the valuable contributions from each academic discipline to thinking about the health of the planet and local communities.

**TELEPHONE:** (808) 236-9114  
**EMAIL (best contact):** [teena@hawaii.edu](mailto:teena@hawaii.edu)  
**EFFECTIVE DATE:** Fall 2023

### 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 \(DB\)](#)
- CA Agripharmatech: Ethnopharmacognosy (Elective)

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

**Read the presentations and PDF resources before ‘class’.**

- 1) [PDFs for our 2 major books are in Laulima Resources.](#)
- 2) Do assignments including worksheets that are written in the style of the exams.
- 3) Complete *project* development as described/discussed.
- 4) An optional class zoom discussion will be offered 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))! Recordings of zoom discussions *that focus on content* will be posted for all.

**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 activity as possible in this online class. Please plan on going out into your neighborhood to \*see what you might not have seen before—prompted by our studies.

**Two projects support our learning and our conversation/learning from/with each other.**

**The first project (25 points)** is focused on DIETY and KINOLAU. I will post these throughout our semester. As with your major project, your findings become *part of our class*.

**The second (major) Research Project and Presentation (50 points) could build on a concept/story that fascinated you as you develop your first project or be a separate subject. :**

A project appropriate to the course must be researched and presented to the class as a recording. If possible-- use materials and techniques as nearly like the ancient Hawaiian's as possible. Can you make Kapa? Lei? Tatoo? Cook kalo? Actual plant specimen (when possible), presentations and finished products or cooking or lei making demonstration will be presented by video in our class. Assistance for video recording will be provided. Examples of projects carried out by previous students will be provided in Laulima Resources both for the information and as examples of how to do this.

*You can select from diverse 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 capes...
- 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 (Dance? Culture? Tools?)

- Polynesian/Hawaiian tattoos and or the process of design and implementation of tattoo
- Plant bio products (fermented drink, teas...)
- Lei making, basketry
- Limu and Hawaiian culture...
- Note—as you look at the schedule you will see MANY plants listed that are described deeply in Krauss and also Abbott. I will not lecture on each one but all are important—*please include any that interest you especially in your projects!*

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 TWO presentations then—one on your deity and the other on ...hula? Remember I can both record (!) you via zoom, and post your presentation on our Laulima site for others to see/study/enjoy. *Your projects become part of our content!*

**\*\*Service Learning--**Please contact me individually if you are involved or would like to be involved in service learning.

### **GRADING**

The grades are assigned as follow:

Assignments and Quizzes.....	215 points
Project GODS and Kinolau .....	25
Project Research and Presentation .....	50
Ethnobotanical Interview.....	15
Final essay on aspect(s) of HAP medicine.....	15
Exam Midterm.....	80
Final Exam.....	100

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**Total      500 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

Note!

- 1) *One out of class activity (with reflection)* can substitute for an assignment—for example go to the Hōkūlani Imaginarium show on WCC campus OR watch a movie (TED talk) or go to a festival at UH Manoa or...options will be announced!
- 2) PROJECTS are opportunities for ‘us’ to follow our own questions, develop information/answers and present to each other. Do you want to understand Kū? If so the deity project will support your learning and—telling ‘us’ what you learn and think. Are you interested in Hawaiian tattoo designs/process? If so the second project will be your chance...TWO projects are requested in our course. If your preference is to carry out ONE project, your points will give greater importance to the assignments and exams and this is a possibility.

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 10/30/2023 (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

Kindle	Hardcover	Paperback
<b>\$0.99</b>	\$31.95	\$17.97
Claim your <b>\$5 Kindle credit</b> Read with Our <b>Free App</b>	6 Used from \$20.97 7 New from \$31.95	2 Used from \$29.99 1 New from \$17.97

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 story-telling 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/)

Brown, Marie Alohalani, Ka Po'e Akua: Hawaiian Reptilian Water Deities  
<https://www.youtube.com/watch?v=Y8MHV1c5Qw4>

**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>

‘Ōlelo No ‘eau; Hawaiian Proverbs & Poetical Sayings—for example number 1471 might be useful to start thinking about how the moon relates to planting in Hawaiian knowledge.

[https://www.lokoea.org/uploads/1/1/3/4/113439871/olelo\\_noeau.pdf](https://www.lokoea.org/uploads/1/1/3/4/113439871/olelo_noeau.pdf)

Who is our author Isabella A Abbott?

<https://thecrimsonwhite.com/65778/opinion/forgotten-figures-the-hawaiian-botanist-who-made-waves/#:~:text=Isabella%20Aiona%20Abbott%20was%20a,Hawaiian%20culture%20with%20her%20mother.>

*Note: ON learning in general...if memory and learning are biological...then how can we optimize these? Each of us has keys/tricks that 'we' use successfully. I'm offering 2 (of many) url's to help us optimize learning in interesting ways that require minimal time! You will see this on the syllabi for all my classes...!*

- 1) Huberman Lab Podcast ~9 minutes *see first ~3 minutes at least!*  
<https://www.youtube.com/watch?v=1GcoMNqoZpo>
- 2) Huberman Lab Podcast How to Enhance Performance & Learning by Applying a Growth Mindset 1 hour 41 minutes \*so long! One point (of many) made in this podcast is that simply knowing what Growth Mindset IS...helps!  
<https://hubermanlab.com/how-to-enhance-performance-and-learning-by-applying-a-growth-mindset/>

## LEARNING ACTIVITIES

- Join our zoom discussion group whenever possible
- *Work with each other* on google docs and worksheets (for example) as well as 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, Lailima, 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, [royinouye@hawaii.edu](mailto:royinouye@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

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.*

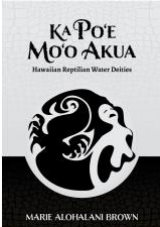
### **ALTERNATE CONTACT INFORMATION**

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 2023 SCHEDULE

Date	Lecture Topic	Resources Chapters A=Abbott K=Krauss
<b>WEEK 1</b> 8/21-8/27	<p>Introduction to ourselves! To how/why people (and cultures) use plants. How do we 'know'?</p> <ul style="list-style-type: none"> <li>What is the role of discovery in our class and in our (your) lives?</li> <li>WHO made the discoveries that lead to our facts...concepts...understandings and perhaps—activism(s).</li> <li>Is everything already known? Is a role of our class to (only) memorize well-discovered facts and/or weave them into understanding?</li> </ul> <p>Lets take some of what is known and apply this to develop understanding—and maybe—experience changes/transformations *to our appreciation for plants and their roles in our lives and that of our life styles and 'families'—*to the questions we think are important...</p> <p><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></p> <p><b>DO: Watch Voyagers and take notes...the Polynesians arrived...why did they leave home? What did the bring and why?</b></p>	pp. ix-x(A), pp.1-7 (K)
<b>WEEK 2</b> 8/28-9/3	<p>Introduction, origin &amp; distribution (overview of ethnobotany worldwide) &amp; Class! HAP! People &amp; plants (HAP). Plant taxonomy generative: flowers &amp; fruit Overview of ethnobotany worldwide! Coffee!</p> <p><i>The universe is full of magical things, patiently waiting for our wits to grow sharper."</i> - Eden Philpotts</p> <p><i>Who is Isabella Aiona Abbott?</i> In addition to the author of one of our books (!): <u>Isabella Aiona Abbott was a world-renowned scientist in the field of marine botany. Born Isabella Kauakea Yau Yung Aiona, Abbott was a Native Hawaiian and Chinese woman born in 1919 on the island of Maui. Throughout her childhood, she was very involved in</u>The traditional foods she often made with her mother included various types of seaweeds and algae—beginning her love for marine <u>botany</u>.</p>	pp. ix-x(A), pp.1-6 (A), pp.1-7 (K)
<b>WEEK 3</b> 9/4 Holiday- 9/11	<p>Plant taxonomy generative: flowers &amp; fruit (practice) &amp; Canoe Plants!</p> <p>The coming of the Gods The first Hawaiians &amp; their plants. An evolving relationship to land &amp; crops (Hawaii, Asia/Pacific)</p> <p>‘Ōlelo No ‘eau; Hawaiian Proverbs &amp; Poetical Sayings—for example number 1471 might be useful to start thinking about how the <i>moon relates to planting in Hawaiian knowledge</i>.</p>	pp. 229-233 (K) flower terms pp.137-140 (A) plant names pp. 192-197 (K) read in prep. for growing ‘uala
<b>WEEK 4</b> 9/11-9/17	<p>First Hawaiians continued &amp; plant taxonomy generative (home practice)</p> <p>The staple crops kalo and uala (HAP) (Polynesian Plants on Campus! ID) Grow ‘uala in water—understand what is happening and why! <i>‘Uala cuttings give out to those that can come by!</i></p>	Beckwith ‘purchase’ pp. Ch 3. 15-16 (A)
<b>WEEK 5</b> 9/18-9/24	<p>Plants as the basis for civilization. Modern day ethnobotany, History of plant science (agriculture from Middle East, China, India to United States) <i>Deity Projects Sign up and START!</i></p>  <p>and all that you find! Use Beckwith now (see Required Text purchase ~\$1.00)</p>	pp. xi-xii (A) Ch. 3 pp. Ch 3. 16-18

<b>WEEK 6</b> 9/25-10/1	Algae—what is important to know? Cultural uses of algae! Food plants from aquatic sources (HAP).	Ch. 6 (A) pp. 8-12 (K)
<b>WEEK 7</b> 10/2-10/8	Cultural uses of kiawe, klu, arrowroot, awa, ohe across HAP Plant tax generative (class practice).	pp. 12-34 (K), Ch. 3 (A)
<b>WEEK 8</b> 10/9-10/15	<b>Exam 1: Content from beginning and generative botany TBA</b> Religious dimension of Hawaii, Asia/Pacific	Chs. 3, 13, 15, 16 (A)
<b>WEEK 9</b> 10/16-10/22	Religious dimension of Hawaii, Asia/Pacific DIETIES and Kinolau <i>Projects!</i> Plant tax vegetative Kalo and 'Uala and Uhi	Beckwith Chs. 3-4 (A)
<b>WEEK 10</b> 10/23-10/29	Images & ceremonies. Hula & music HAP DIETIES and Kinolau <i>Projects!</i> <i>Projects in general!</i>	pp. Ch. 15 pp. 113-117 (A)
<b>WEEK 11</b> 10/30-11/5	Ecological, economic concerns in ethnobotany, conservation Plant tax vegetative (class practice) DIETIES and Kinolau <i>Projects!</i> Last day to withdraw with a W 10-30-23	Ch. 2 (A)
<b>WEEK 12</b> 11/6-11/12	Clothing/tapa, indigenous textiles. (Preparing international dishes) (HAP) <i>Projects!</i> DIETIES and Kinolau <i>Projects!</i> QUIZ Vegetative Botany and Content 11/10 HOLIDAY	Ch. 7 (A)
<b>WEEK 13</b> 11/13-11/19	Cultural uses of banana, breadfruit, berries, calabash, coconut (HAP). <i>Projects! Any of these plants/uses can be your project!</i> Cultural uses of guava, hau, ironwood, kamani, koa, kou, cotton, kukui, lehua (HAP)	pp. 73-131 (K) pp. 73-131 (K)
<b>WEEK 14</b> 11/20-11/26	<i>Projects! Any of these topics/plants/uses can be your project! Not all will be covered in class.</i> Cultural uses of gourds (HAP) & HOLIDAY 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)  11/23-24 HOLIDAY	Ch. 5 (A) Ch. 12 (A) Ch. 17 (A), pp. 145-177 (K) pp. 59-61, 99 (A) pp. 178-197 (K), pp. 69-76 (A) Search A and K for information
<b>WEEK 15</b> 11/27-12/3	Medicine & healing (HAP) Begin Essay for Final comparing Hawaiian and Polynesian Medicine <b>OPTION for Out of Class Adventure.</b>	Ch. 13 (A), Art Whistler Polynesian Medicine
<b>Week 16</b>	Cordage for all occasions (HAP), sandalwood, sugar cane and tamarind <i>Projects! Any of these topics/plants/uses can be your project! Not all will be covered in class.</i>	Ch. 8, pp. 40-41, 132 (A), pp. 198-210 (K)
<b>12/4-12/10</b>	Fishing implements, Changes in society & plant use after 1820 in Hawaii, Ethic and indigenous property rights (HAP) <i>Projects!</i> 12-7-23 Last day of instruction	pp. 83-86, Ch. 14 (A) pp. 131-136 (A)
<b>12/10-12/15</b>	<b>FINAL EXAM TBA</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.  
Have a great semester*