

**[BI694] [Ethnobotany of Micronesia]**

Course Syllabus and Calendar

**Section Information**

Section [Number]

Course Delivery Mode: Face-to-Face

[Course Schedule Days/Times] Friday 4:00-7pm

[Location/Room] Marine Lab Classroom 205

**Instructor Information**

Dr. Else Demeulenaere

Email: else@uog.edu

Office: Center for Island Sustainability,

Dean Circle, House 32

[Office Hours - Schedule] Mondays

Office Phone Number: 735-2918

**COURSE CATALOG DESCRIPTION**

The course “Ethnobotany of Micronesia” review concepts of ethnobotany with an emphasis on Micronesia. Ethnobotany is the study of interrelationships between people and plants of a particular Indigenous/traditional culture and region and how humans in an historical and current context use plants and represent them in their knowledge and value systems. Students gain a basic understanding of ethnobotanical research methodologies, inclusive of ethical principles. Students learn about Micronesia’s plants used for food, medicines, fishing, construction, and ways that traditional knowledge contributes to other fields of study, such as sea fearing, sustainable resource management, socio-economic development, climate change science, and human health.

The course consists of three hours of lecture per week. Prerequisites: BI157, BI147/L (Principles of Biology I/ Principles of Biology I lab) and BI 158/ BI 158L (Principles of Biology II/ Principles of Biology II lab). The lab, BI 694L, MUST be taken concurrently. Corequisite: BI 694L.

**COURSE CONTENT**

The course “Ethnobotany of Micronesia” centers around four major topics. The first part familiarizes the students with the field of ethnobotany. Part two deals with methods and techniques in ethnobotany, literature, and project design. Part three covers ethnobotanical fieldwork. Part four covers a wide variety of plant uses.

**EEO/ADA STATEMENT**

The University is committed to maintaining the campus community as a place of work and study for faculty, staff, and students, free of all forms of discrimination and harassment. If you experience harassment or discrimination, then you should report it immediately to the EEO Director at the **EEO/ADA & Title IX Office**, Institutional Compliance Officer (671) 735-2244 located in Dorm 1. For immediate assistance in an emergency call 911.

**DSS (Disability Support Services) Accommodation**

If you are a student with a disability who will require an accommodation(s) to participate in this course, please contact the Student Counseling and Advising Service Disability Support Services office to discuss your specific accommodation needs confidentially. A Faculty Notification letter will be emailed to me specifying your approved accommodation. If you are not registered, you should do so immediately at the Student Center, Rotunda office #5, [sssablan@triton.uog.edu](mailto:sssablan@triton.uog.edu) or ph/TTY: 735-2460, to coordinate your accommodation request.

**TOBACCO-FREE/SMOKE-FREE CAMPUS**

UOG is a tobacco-free campus. Thank you for not using tobacco products on campus, and for helping make UOG a healthy learning and living environment. For more information visit: <http://www.uog.edu/smoke-free-uog>

**CONTACT INFORMATION FOR CLASSMATES**

Write the names and contact information for two or three classmates you can contact if you miss a class or want a study partner. Study groups are encouraged!

**STUDENT LEARNING OUTCOMES ALIGNMENT MATRIX**

<b>Course Student Learning Outcomes (SLO)</b>	<b>Grad Bio Program (PLO)</b>	<b>Institutional (IGLO)</b>	<b>Activities/Assessments</b>
Describe the interdisciplinary concepts of ethnobotany in the context of Micronesia's Indigenous cultures.	1, 3, 5, 6	1, 2, 4, 5	exam, research notes, essays, class discussion
Understand how ethnobotany and ethnoecology principles can be applied in conservation and sustainability (relating for instance to food and medicine sovereignty).	1, 3, 4, 5, 6	1, 2	exam, research notes, essays, class discussion
Develop taxonomic knowledge about Micronesia's rich flora with a focus on Guam.	3, 5, 6	1, 2	exam, research notes, essays, class discussion
Identify culturally useful plants by name (CHamoru and scientific name), type, usefulness, importance to CHamoru culture (and Micronesia)	3, 5, 6	1, 2	exam, research notes, essays, class discussion
Develop the skills and methods used to collect and preserve plant materials and document their uses.	1, 5, 6	1, 2	exam, research notes, essays, class discussion
Understand and discuss ethical awareness issues involved in human subject research, traditional knowledge, and intellectual property rights.	5, 6	4, 5	exam, research notes, essays, class discussion
Gain skills and experience in ethnobotanical research methodologies	1, 5, 6	1, 2, 4, 5	exam, research notes, essays, class discussion
Advance ethnographic skills in gathering and analyzing data, and scientific writing.	1, 2, 5, 6, 7	1, 2, 3	exam, research notes, essays, class discussion
Interact respectfully with Micronesia's Indigenous Elders and traditional knowledge holders to learn about traditional plant uses, respecting their knowledge and practices.	5, 6	3, 4, 5	exam, research notes, essays, class discussion
Present research findings	5, 6, 7	3	exam, research notes, essays, class discussion

### **Graduate Biology Program Learning Outcomes (PLOs)**

Upon successful completion of the program, students will demonstrate the following:

PLO #1 – Demonstrate ability to analyze data and design experiments using standard statistical procedures

PLO #2 – Demonstrate ability to write technical scientific reports and articles

PLO #3 – Demonstrate knowledge of basic organismal and ecological principles

PLO #4 – Demonstrate knowledge of basic cellular and molecular-level principles

PLO #5 – Demonstrate knowledge of the latest advances in a variety of fields in biology

PLO #6 – Demonstrate ability to conceive, conduct and report original research

PLO #7 – Demonstrate the ability to disseminate scientific concepts and research findings in a variety of formats (e.g., written and oral)

### **Institutional Graduate Learning Outcomes (IGLOs)**

Upon completion of their degree program, graduate students will:

IGLO #1 – Demonstrate mastery of critical skills, theories, methodologies, and other content knowledge at a level that will enable them to address fundamental questions in their primary area of study

IGLO #2 – Plan, conduct, and complete a significant research or creative project

IGLO #3 – Exercise oral and written communication skills sufficient to publish and present work in their field

IGLO #4 – Adhere to the ethical principles of academia and their respective disciplines in coursework, fieldwork, and other appropriate situations

IGLO #5 – Exemplify, through service, the value of their discipline to the academy and the community at large, interacting productively and professionally with people from diverse backgrounds

## **COURSE REQUIREMENTS**

### **REQUIRED TEXTS**

A collection of ethnobotany and botany textbooks of Micronesia will be available for students (either through MARC, RFK library, or my personal collection at House 32, Dean Circle). Ethnobotanical reading materials and videos will be provided. Reading materials are listed per lecture and will be provided a week before class. Additional literature will be provided during the lectures and PowerPoint presentations.

## **GRADING INFORMATION**

### **COURSE FINAL GRADES**

Letter Grade	Grade Point Value	Percent Grade	Definition	
A+	4.00	98-100%	Outstanding	Honors-level performance with superior quality and extraordinary distinction.
A	4.00	93-97%		
A-	3.67	90-92%		
B+	3.33	87-89%	Good	Solid accomplishment, indicating a substantial mastery of course materials and a good Command of skills required by the course.
B	3.00	83-86%		
B-	2.67	80-82%		
C+	2.33	77-79%	Adequate	Students have achieved the level of competency needed for advancing to a subsequent course which has this course as pre-requisite.
C	2.00	70-76%		
D	1.00	60-69%	Deficient	Minimal passing, but not adequate to take a subsequent course which has this course as pre-requisite.
F	0.00	<60%	Failure	Inadequate to receive credits

P Pass

I Incomplete

NC No Credit. *Note: This Course Grade must be stated in the approve Course Catalog Description.*

UW: Unofficial withdrawal assigned by Registrar. Student stopped attending classes and did not submit required documents to the Admissions & Records office.

W: Withdrawal assigned by Registrar. Student stopped attending classes and submitted required documents to the Admissions & Records office.

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**GRADE CATEGORIES: ASSIGNMENTS AND PERCENTAGES**

Course Requirements	Points	Percent (%)
Midterm exam	40	20%
Class discussion, research notes and essays	100	50%
Final theoretical exam	50	25%
Discretionary points	10	5%
Total	200	

**LECTURES**

Lectures will occur at the scheduled times and location. While attendance is expected, absence notes, excused or unexcused, can be submitted in advance or after the absence. Discretionary points will be based on participation in class and contribution efforts towards our overall class projects. The material on exams, class discussions and research notes, and essays will be based on nearly 100% from the lectures, so performance will indirectly reflect attendance. If the syllabus lists reading materials, it is recommended you read these prior to the class so you can participate in the class discussions. The reading materials will be provided a week in advance.

If the syllabus lists literature, you may read it prior to class but it is not needed. It is recommended to read these materials after class to broaden your understanding of the topic.

**ASSIGNMENT DESCRIPTIONS**

The total grade will be based on class discussions, the assigned 7 research notes (1-2 pages each) (the ethnobotanical reading questions will be based on selected class readings), 2 essays based on 2 additional articles of the student's choice (relevant to their topic) (6 pages), a midterm and final theoretical exam. Participating in class discussions is key as we will discuss personal philosophies, perceptions, strengths and challenges in ethnobotany with peers and invited speakers.

The dates for research notes, essay assignments and exams will be announced during class. If research notes assignments, essays and exams are missed due to excused absence, the instructor can provide a make-up date.

**STUDENT WORKLOAD**

Time outside the classroom – It is recommended to study an average of 2 h for every hour of lecture class time. I suggest you spend 1 hour pre-reading the reading materials before class, spend 2 hours re-reading the reading materials and revising your notes after class, and spend 4 hours completing your assignments.

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**COURSE CALENDAR**

**PART 1: The field of ethnobotany**

## WEEK 1

### **August 14: Course Session 1a**

#### Activities & Assignments

- Activities: Introduction, purpose, and objectives of this ethnobotany course.  
Overview of syllabus and class requirements.

### **August 16: Course Session 1b**

#### Activities & Assignments

- Overview of the development of ethnobotany as an academic discipline and how it relates to decolonization (important frameworks: Indigenous viewpoints, biocultural diversity, applied ethnobotany and ethnoecology in conservation and sustainable development, traditional plant use and management).

**Reading Assignments:** Baldauf, C. 2019. From the colonialist to the “autobotanical” approach: the evolution of the subject-object relationship in ethnobotanical research. *Acta Botanica Brasilica* 33(2): 386 – 390.

- Institutional Review Board (IRB) guidelines (CITI training guidelines)
- **Literature:** Smith, L. T. 2012. Decolonizing Methodologies. Zed Books. Otago University Press.

## **PART 2: Methods and techniques in Ethnobotany, literature, project design**

## WEEK 2

### **August 23: Course Session 2a**

#### Activities & Assignments

- Ethnobotanical literature, herbarium, video material. How do we navigate through these ethnobotanical resources? How do we find knowledge gaps to preserve and protect biocultural diversity?
- **Reading Assignments:** Demeulenaere, E., Rubinstein, D.H.; Yamin-Pasternak, S.; Lovcraft, A.L.; Ickert-Bond, S.M. 2021. Recollections of Fadang and Fanihi: The taste and smell of CHamoru bygone foods and the challenge of endangered island species. *Pacific Asia Inquiry* 11: 80-105.
- **Assignment 1, Literature study:** find an ethnobotanical peer-reviewed article and another source and prepare research notes (between 1-2 pages) to discuss in class (due week 2b).

### **August 23: Course Session 2b**

#### Activities & Assignments

- Discuss the different articles in class with everyone

## WEEK 3

### **August 30: Course Session 3a**

#### Activities & Assignments

**COURSE CALENDAR**

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- Methods and techniques in Ethnobotany, part 1, qualitative
- Literature:
- Albuquerque, U. P., L. V. F. Cruz da Cunha, R. F. Paiva de Lucena, and R. R. Nobrega Alves. 2014. Methods and techniques in ethnobiology and ethnoecology. Humana Press.
- Vogl, C. R., Volg-Kukasser, B. 2004. Tools and Methods for Data Collection in ethnobotanical studies of homegardens. *Field Methods* 16 (3): 285-306.
- Yin, R. K. 2011. Qualitative Research from Start to Finish. The Guilford Press, New York, London.
- Creswell, J. W. 2007. Qualitative Inquiry and Research Design: Choosing Among Five Approaches. Thousand Oaks, California: SAGE Publications.

**August 30: Course Session 3b**Activities & Assignments

- Methods and techniques in Ethnobotany, part 2, quantitative
- Literature:
- Albuquerque, U. P., L. V. F. Cruz da Cunha, R. F. Paiva de Lucena, and R. R. Nobrega Alves. 2014. Methods and techniques in ethnobiology and ethnoecology. Humana Press.
- Collection in ethnobotanical studies of homegardens. *Field Methods* 16 (3): 285-306.
- Hoffman, B., Gallaher, T. 2007. Importance Indices in Ethnobotany. *Ethnobotany Research & Applications* 5: 201-218.
- Creswell, J. 2014. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Thousand Oaks, California: SAGE Publications.

**WEEK 4****September 6: Course Session 4a**Activities & Assignments

- Choose a location/s as a group and study the ethnobotanical uses of its plants as a group or study one particular species in depth and compare with traditional uses elsewhere in the Pacific.
- **Reading assignments** will be selected based on the different projects.
- **Assignment 2, Literature study:** find an ethnobotanical peer-reviewed article and prepare research notes (between 1-2 pages) to discuss in class (due week 4b).

**September 6: Course Session 4b**Activities & Assignments

- Designing a questionnaire for qualitative and quantitative research

**COURSE CALENDAR**

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- Literature: Albuquerque, U. P., L. V. F. Cruz da Cunha, R. F. Paiva de Lucena, and R. R. Nobrega Alves. 2014. Methods and Techniques in Ethnobiology and Ethnoecology. Humana Press.
- **Assignment 3, Literature study:** find an ethnobotanical peer-reviewed article and prepare research notes (between 1-2 pages) to discuss in class (due week 5a).

**WEEK 5****September 13: Course Session 5a**Activities & Assignments

- Institutional Review Board (IRB) guidelines

**PART 3: Fieldwork in Ethnobotany****September 13: Course Session 5b**Activities & Assignments

- Ethnobotanical fieldwork
- Collecting plant uses through voucher species

**WEEK 6****September 20: Course Session 6a**Activities & Assignments

- Plant communities on Guam, part 1
- Literature: Mueller-Dombois, D., and R. F. Fosberg. 1992. Vegetation of the Tropical Pacific Islands. Springer.

**September 20: Course Session 6b**Activities & Assignments

- Plant communities on Guam, part 2
- Literature: Mueller-Dombois, D., and R. F. Fosberg. 1992. Vegetation of the Tropical Pacific Islands. Springer.

**WEEK 7****September 27: Course Session 7a**Activities & Assignments

- Marine plant communities on Guam Mangroves and Seaweed (guest lecture Tom Schils)

**September 27: Course Session 7b**Activities & Assignments

- Collecting ecological data, distribution area pertaining to the species you study and/or area you are studying
- **Reading assignments 4, Literature study:** Select reading materials that relate to your field of study, such as sea fearing, linguistics, sustainable resource management, socio-economic

development, climate change science, and human health. Prepare research notes (between 1-2 pages) to discuss in class (due week 8a).

- **Reading materials:** based on the students' interest I will provide reading material from Ethnobiology. Eds. Anderson E. N., Pearsall D. M., Hunn E. S., Turner N. T. Wiley-Blackwell. 285-304. The book includes chapters on Ethnomedicine, traditional food and nutrition systems, ethnoecology and landscapes, traditional resource and environmental management, agroecology, linguistic ethnobiology. Other reading material will be provided based on the students' interest, current and/or future career path.

## **WEEK 8**

### **October 4: Course Session 8a**

#### Activities & Assignments

- Conducting interviews, methods
- Selecting participants
- Literature:
- della Porta, D. 2014. Methodological Practices in Social Movement Research.
- Bernard, H. R. 2016. Research Methods in Anthropology. Physik für Ingenieure. 4th edition. Altamira Press.
- Creswell, J. W. 2007. Qualitative Inquiry and Research Design: Choosing Among Five Approaches. Thousand Oaks, California: SAGE Publications.
- **Reading assignment 5, Literature study:** Demeulenaere, E.; Yamin-Pasternak, S.; Rubinstein, D.H; Lovecraft, A.L., Ickert-Bond, S.M. 2021. Indigenous spirituality surrounding *Serianthes* trees in Micronesia: Traditional practice, conservation and resistance. *Social Compass* 68(4): 548-561. <https://doi.org/10.1177%2F00377686211032769>. Prepare notes (between 1-2 pages) to discuss in class (due week 10a).

### **October 4: Course Session 8b**

#### Activities & Assignments

- MIDTERM EXAM

## **WEEK 9 break (no classes) Oct 7-12**

## **WEEK 10**

### **October 18: Course Session 10a**

#### Activities & Assignments

- Participant observation
- Literature:
- Balsiger, F. and A. Lambelet. 2014. Participant Observation. In: della Porta. Methodological Practices in Social Movement Research. Oxford University Press, pp. 144-172.

- della Porta, D. 2014. Methodological Practices in Social Movement Research.
- **Reading assignment 6, Literature Study:** Demeulenaere, E. 2021. *Prutehi Litekyan: A Social Movement to Protect Biocultural Diversity and Restore Indigenous Land Sovereignty on Guåhan*. In: Indigenous Peoples, Heritage and Landscape in the Asia Pacific: Knowledge Co-Production and Empowerment, eds. Acabado, S.; Kuan, D. New York and Milton Park: Routledge. Prepare notes (between 1-2 pages) to discuss in class (due week 10b).

**October 18: Course Session 10b**

Activities & Assignments

- Transcribing and coding ethnobotanical data.
- Analyzing data using software programs such as Atlas.ti

**PART 4: Plant uses**

**WEEK 11**

**October 25: Course Session 11a**

Activities & Assignments

- Plant use categories, Parts of the plants being used
- Chapters from Economic Botany will be used as well
- **Pick an article for essay 1 (due week 11b)**

**October 25: Course Session 11b**

Activities & Assignments

- Ethnolinguistics
- Readings will be provided a week in advance.
- **Reading materials:** Tarigan, L. E., Widayati, D. 2021. An approach of ecolinguistic in Minyak Karo based on ethnobotany. *Nusantara Hasana Journal* 1(4): 108-120.
- **Invited speaker**

**WEEK 12**

No class

**WEEK 13**

**November 15: Course Session 12a**

Activities & Assignments

- Traditional Resource and Environmental Management
- Readings will be provided a week in advance.

- **Reading Materials:** Fowler, C. S., Lepofsky, D. Traditional resource and Environmental management *in* Ethnobiology. Eds. Anderson E. N., Pearsall D. M., Hunn E. S., Turner N. T. Wiley-Blackwell. 285-304.

- **Invited speaker**

**November 15: Course Session 12b**

Activities & Assignments

- Ethnomedicine
- Readings will be provided a week in advance.
- Invited speaker

**WEEK 14**

**November 22: Course Session 13a**

Activities & Assignments

- Seafaring
- Readings will be provided a week in advance.
- Invited speaker
- **Pick an article for essay 2 (due week 10b)**

**November 22: Course Session 13b**

Activities & Assignments

- Plants and stories/legends/meaning to Indigenous people
- Readings will be provided a week in advance.
- Invited speaker

**WEEK 15**

**November 29: Course Session 14a**

Activities & Assignments

- Plants and food
- Readings will be provided a week in advance.
- Invited speaker

**November 29: Course Session 14b**

Activities & Assignments

- Bird/fish stories relating to plants
- Readings will be provided a week in advance.
- Invited speaker

**WEEK 16: FINALS WEEK**

**December 10-12**

- Work on final research notes relating to our class project, exam week
- Presentation of project, exam week (FINAL EXAM – Date TBA)

\*During Final Exam Week, the class meets according to the Approved Exam Schedule. All UOG classes are required to meet during Final Exam Week.