

Course Information:

INTRODUCTION TO ETHNOBOTANY

EBOT F100

3 credits

July 13th – July 24th, 2015

Location: Scammon Bay, AK

Meeting Time:

The class will officially meet 9:00A.M. – 12:00 P.M. and 1:00 – 4:00 P.M., Monday – Friday. Some days may run longer especially on days that we do longer hikes and travel out of town. There may also be additional meeting times, depending on the availability of elders at other times, as well as the possibility of weekend excursions. Students should expect to be busy most of the day. Most days we will meet at 8 P.M. for reflecting on the day's events.

Instructors:

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Additional presenters include Guest Elders and will be announced throughout the course
Office Hours will be arranged by appointment.

Course Description:

This course surveys basic concepts of botany and ethnobotany, with emphasis on the native flora of Alaska and how people use these plants. Students will gain a basic understanding of plant biology and taxonomy; scientific methods of plant collection, including identification and curation; as well as the use of native Alaska plants for food and medicines, ethnobotanical methods of collecting plant-use information from indigenous cultures, and ways that this information contributes to other fields of study, such as resource management, community development, and human health.

Course Goals:

This course will focus on mastery level understanding of the principles of botany and ethnobotany. Specific course objectives focus on the following competencies:

- Interactions of humans and environments through traditional ecological knowledge, sustainability, and biogeography.
- Specialized botanical and ethnobotanical knowledge of the northern regions of Alaska.
- Multiple cultural perspectives including comparative cultural analysis and human ecology.

- Problem-solving and research skills: ethnographic methods, taxonomic classification and identification, respect and ethical decision making.
- Professional skills in communication (written and oral), career exploration, service, and developing a sense of place.

Student Learning Outcomes:

Upon successful completion of this course, you, the student, will be able to:

- Collect and identify plants using technical keys and descriptions
- Create a small teaching plant collection and voucher specimens
- Create your own ethnobotanical field notebook
- Practice standard ethnobotanical survey techniques
- Become familiar with basic botanical terms, plant morphology, taxonomy and ecology; field collection methods
- Have an understanding of non-vascular plants
- Apply botanical terms and concepts to validate a species determination
- Recognize the basic ideas in folk taxonomy and cognitive ethnobotany
- Recognize regionally-important plant families based on field characteristics and by using scientific keys
- Explore the general principals of ethnobotany, including its history and importance in traditional and modern culture
- Interpret the cultural relevance of the native flora to the indigenous cultures of the Alaska
- Describe medicinal, food and other uses of Alaska native plants
- Defend the importance of ethnobotanical knowledge in community decision-making processes

Required Texts and booklets:

These will be given to each student at the start of class.

1. Jones, A. 2010. *Plants that We Eat: Nauriat Nigiñaqtuat: from the Traditional Wisdom of the Iñupiat Elders of Northwest Alaska*. University of Alaska Press.
2. Guertin, P., Barnett, L., Denny, E.G., Schaffer, S.N. 2015. USA National Phenology Network *Botany Primer*. USA-NPN Education and Engagement Series 2015-001, www.usanpn.org.
3. *Introduction to Ethnobotany*, Notebook, Summer Class 2015.

Additional materials will be provided to students for use.

Instructional Methods:

This course is being offered at Scammon Bay, Alaska. This course incorporates service and project based learning and will include lectures, small group projects, individual student oral presentations, and maintaining field notebooks.

Evaluation:

You will be evaluated on the following assignments: class participation, lab notebook, lab presentation, and your final exam. Absolute scores will be tabulated into your grade out of 1000 possible points.

	Due Date	Total Points	Percent of Grade
class participation		150	15%
lab notebook first review	Fri. 7/17	100	10%
herbarium specimen	Tues. 7/21	100	10%
project presentation	Thur. 7/23	250	25%
lab notebook final	Fri. 7/24	200	20%
final exam	Fri. 7/24	200	20%
total		1000	100%

Grading Scale: (based upon the percentage of total possible points):

Grade	Percentage	Description
A+	100-97.00	indicates a thorough mastery of course content and outstanding performance in completion of course requirements
A	96-93.00	
A-	92-90.00	
B+	89-87.00	indicates a high level of acquired knowledge and performance in completion of course requirements.
B	86-83.00	
B-	82-80.00	
C+	79-77.00	indicates a satisfactory level of acquired knowledge and performance in completion of course requirements.
C	76-73.00	
C-	72-70.00	
D	69-67.00	indicates a minimal level of acquired knowledge and minimal performance in completion of course requirements. This grade does not satisfy requirements for courses in the major, minor, core or graduate programs.
D+	66-63.00	
D-	62-60.00	
F	less than 60	indicates failure to meet a minimal level of understanding of course content and (or) performance in completion of course requirements.

C- is the minimum acceptable grade that undergraduate students may receive for courses to count toward the major or minor degree requirements, or as a prerequisite for another course.

Please Note: This class can only be taken for credit. CR, DF, and AU are not options for this course.

Course Policies:

Time Commitment: College level science courses customarily require at least 2 to 3 hours of time outside of class (for reading, study, and preparation) for each hour spent in class. Students whose schedules cannot accommodate this level of commitment for whatever reason (work, family obligations, etc.) are unlikely to be successful in this class.

Attendance: Student attendance and participation are necessary to learning the material in this course. Each student is expected to attend each class session, to be on time, and to remain for the entire session. Late arrivals and early departures are disruptive and unfair to other students.

Exams and quizzes missed because of an excused absence must be taken within one week after a student's return to school. Because of logistical difficulties, some sessions and assignments may be difficult to make up, so be sure and talk with the instructor when you know that you will have to miss class(es).

Should school or class be officially cancelled (because of inclement weather, etc.), exams, quizzes, or assignments due during that cancellation will be given or due the next scheduled class session.

Assignments submitted late without an authorized excuse will be subject to a 10% grade reduction for each class period that the submission is delayed. Any make up work not completed by 08/01/15 will receive a grade of zero (0) and this will be factored into your final grade.

Student Behavior: Students registered with this institution are expected to contribute to the maintenance of an environment that is conducive to learning and respectful of others. Consequently, they are required to behave in accordance with acknowledged societal norms and are prohibited from engaging in behavior that is distracting to themselves or to others. Inappropriate behavior will result minimally in being asked to leave class immediately. Refrain from talking or making noise during lectures, laboratory sessions, and exams, although all contributions to and with the class are encouraged, with participation highly valued as part of your final grade.

Study Skills: This class requires good reading and study skills. If a student feels that he or she is falling behind, he or she should contact the instructor immediately and we will work with you directly. Issues of this type seldom resolve unless specific measures are taken in a timely fashion.

Harassment: College of Rural and Community Development (CRCDD) and University of Alaska Fairbanks (UAF) have specific policies regarding harassment, and harassment will not be tolerated. Anthropology students address subjects that are considered to be delicate by many individuals and cultures. Both students and faculty are expected to act and speak with sensitivity and respect.

Use of College Equipment: Students are expected to use their utmost care to assure the continued availability of campus resources. Safety: Any accidents or injuries are to be reported to the instructor immediately.

Support Services:

The Kuskokwim Campus Student Services Coordinator provides services by appointment and on a walk-in basis. Staff at Kuskokwim Campus understand the unique challenges of rural students and will assist by providing advising services, assessment tests, financial aid information and advising, and assistance with forms and applications if needed. Services are not limited to those listed and other services will be provided if possible. For more information or to make an appointment, contact the Kuskokwim Campus (907) 543-4500.

Disabilities Services:

UAF has a Disability Services office that operates in conjunction with the College of Rural and Community Development (CRCDD) campuses and UAF's Center for Distance Education (CDE). Disability Services, a part of UAF's Center for Health and Counseling, provides academic accommodations to enrolled students who are identified as being eligible for these services. If you believe you are eligible, please visit <http://www.uaf.edu/disability> on the web or contact a student affairs staff person at your nearest local campus. You can also contact Disability Services on the Fairbanks Campus by email at uaf-disabilityservices@alaska.edu, by phone at (907)474-5655, or by TTY at (907)474-1827. The instructors will work with the Office of Disabilities Services to provide reasonable accommodation to students with disabilities.

Course Calendar: LECTURE TOPICS and LAB ACTIVITIES BY DAY

Each day has 6 teacher/student hours divided between lecture and lab

Please Note: This is an approximation; the schedule may vary due to rain, the availability of elders and transportation etc. Attempts will be made to cover all topics, regardless, though not necessarily in this order. Readings should be completed at night in order to be prepared for class at 9am.

Day		Description
<i>Monday, July 13th, 2015</i>		
1	Lecture	Introduction to the class, objectives, and expectations. Overview of scope of botany and ethnobotany to be covered, general housekeeping issues <i>How to Gather Plants Respectfully</i> Botanical taxonomy (including scientific names) and folk taxonomy. Overview of ethnobotany and economic botany and the many related disciplines.
	Lab	Notebooks will be handed out and students will begin learning how to keep notebook/journal for class. Discuss individual plant profile for final project. Walk around and look at plants close. Discuss issues for interviewing local people
	Reading	Jones—Read Preface & Introduction & poisonous plants appendix, class lab book Guertin et al.—Introduction page 1-19 Flip through the pages and learn where each section is for further reference.
<i>Tuesday, July 14th, 2015</i>		
2	Lecture	Basic plant morphology, belowground systems, shoots, leaves, flowers and fruits/seeds. Focus on structures critical for plant identification. Utility of ethnobotany in cultural preservation.
	Lab	Discuss ideas for individual plant profile for final project. Being prepared (what does an ethnobotanist take into the field?). Identify plant parts from wild collected plants. During lab time, we will seek out examples of morphological diversity in plants and learn the identification of a few common local species.
	Reading	Jones—page 3 to 24, Greens in oil. Guertin et al.—Stems & Buds page 20-27 & Roots page 28-31
<i>Wednesday, July 15th, 2015</i>		
3	Lecture	Introduction to medical ethnobotany, magical and shamanic uses. Ethnopharmacognosy. Basic plant chemistry Plant identification using technical keys.
	Lab	Freelisting. Review of plant morphology in the field. Preparation of herbarium specimens. Preparation of ethnobotanical specimens. TURN IN YOUR IDEA FOR YOUR FINAL PROJECT
	Reading	Jones—page 35 to 62, Guertin et al.— Leaves page 32-41
<i>Thursday, July 16th, 2015</i>		
4	Lecture	Hypothesis testing in ethnobotanical research. Field characteristics for some basic plant families common to area. Invasive plant concerns. Resource conservation, and land ownership/policies.
	Lab	Qualitative and research method, including participant observation and interviewing. Overview outline and structure of ethnobotanical surveys (looking at some examples) Observation (sketching, photographing, recording in the field)
	Reading	Jones—page 54 to 79, Guertin et al.—Flowers page 42-49

<i>Friday, July 17th, 2015</i>		
5	Lecture	Routes of administration. Photosynthesis, secondary compounds, focusing on compounds, tissues and processes that relate to human use. Seasonal changes in chemical composition. Plant reproductive and dispersal methods.
	Lab	Recognizing some families in the field. Practice with keys, collecting, learning morphology in the field. TURN IN LAB/FIELD NOTEBOOK FOR INITIAL REVIEW
	Reading	Jones—pages 81 to 112 Berries, Guertin et al.—Reproduction & Fruits page 50-53
<i>Monday, July 20th, 2015</i>		
6	Lecture	Introduction to more plant families in the area. Ethnobotany and history. Indigenous Plant Knowledge of AK and the circumpolar region. Social History, Lore and stories.
	Lab	More on ethnobotanical interviewing and research techniques Group exercise to practice methodologies. Learn more local plant species
	Reading	Jones—pages 113 to 137 Berries
<i>Tuesday, July 21st, 2015</i>		
7	Lecture	Introduction to lichens, mosses, and fungi, including uses by Alaskan people. Historical and cross-cultural overview of medicinal plant use. Ethical issues and bioprospecting.
	Lab	More trips to field with elders to look for useful plants. More practice with keying, collecting in field. Students given time to work on individual plant profile.
	Reading	Jones—pages 141 to 180
<i>Wednesday, July 22nd, 2015</i>		
8	Lecture	Historical and cross-cultural overview of food plants. Catch up time for topics not yet covered. Review for Exam
	Lab	Ethnobotanical data analysis. Peer and instructor counseling on individual projects.
	Reading	Jones—Appendices
<i>Thursday, July 23rd, 2015</i>		
9	Lecture	Building materials, poisons and miscellaneous plant uses. Final student presentations: time and location to be determined later.
	Lab	Field time will cover more of all above, including looking for new plants not seen yet. Instructor checks field notebook and class notebook/journal.
	Reading	Review all materials for final exam
<i>Friday, July 24th, 2015</i>		
10	Lecture	Ethnobotanical contributions to the modern world. Broader impact of ethnobotany on Alaskan communities. Areas needing future research.
	Lab	Student presentations of plant profiles. Final exam. TURN IN LAB NOTEBOOK FOR FINAL GRADING

Reading Schedule: Readings need to be completed on these specific *nights* prior to class the following morning at 9am.

- Day 1: Monday, July 13th: Jones—Read Preface & Introduction & poisonous plants appendix, Flip through the pages and learn where each section is for further reference, Guertin et al.—Introduction page 1-19
- Day 2: Tuesday, July 14th: class lab book, Jones—Page 3 to 24, Greens in oil, Guertin et al.—Stems & Buds page 20-27 & Roots page 28-31
- Day 3: Wednesday, July 15th: Jones—page 35 to 62, Guertin et al.— Leaves page 32-41
- Day 4: Thursday, July 16th: Jones—page 54 to 79, Guertin et al.—Flowers page 42-49
- Day 5: Friday, July 17th: Jones—pages Berries 81 to 112, Guertin et al.—Reproduction & Fruits page 50-53
- Day 6: Monday, July 20th: Jones—pages Berries 113 to 137
- Day 7: Tuesday, July 21st: Jones—pages 141 to 180
- Day 8: Wednesday, July 22rd: Jones—Appendices