Introduction to Alaska’s Flora
BIOL F195P
Summer Session 2013

Instructor: Mel Durrett, PhD Candidate in Biological Sciences, msdurrett@alaska.edu

The objective of this class is to introduce students to Alaska’s unique flora. The lectures, laboratory sessions and local field trips are designed to familiarize students with the origins of our flora, plant morphology, technical keys and other references for field plant identification. Students will learn to appreciate the function of, and become more comfortable with using, scientific names. Upon completion of this class, you should be able to recognize several common northern plant families and plant species native to interior Alaska.

Credit: 1

Prerequisites: None.

Required text: None. Handouts will be provided and reference books will be available throughout the course. Several books will be suggested as valuable but their purchase is optional. A hand lens or any hand-held magnifier will be very helpful in lab and for field trips (try Alaska Prospector’s Supply on College Road). Bring a notebook for writing and drawing, and plastic bags if you wish to make your own collections in the field for identification in the lab.

Location: IRV I 103, in the central part of West Ridge; the large lab in basement of Irving I on Koyukuk Rd (which is closed to vehicles). Parking behind the Museum or in front of IARC.

Course requirements: Attend and participate in all lectures, field trips, and group discussions. Course grade will be Pass/Fail and dependent upon attendance of all lectures and field trips. If you know you will miss any class time, consider auditing the course. Additionally, there will be 1 P/F group field quiz and 1 P/F Project for learning assessment.

Final Project: You have several options:
1. Plant identification project. Press (or take good whole-scale and macro photos of) 3 plant specimens that we have not discussed explicitly in class. They should be from 3 different plant families. Identify each specimen using a technical key and label and/or list all the traits on each plant (or photo/s) that support your conclusion. A “Pass” will clearly demonstrate that you can recognize plant traits and use technical keys.
2. Plant Species Pamphlet Assignment. Research one plant and produce an informative pamphlet (see detailed guidelines). A “Pass” will clearly demonstrate your familiarity with a particular plant species and its lookalikes, uses, ecology and conservation status.
3. Some other plant-related project that demonstrates that you have learned the skills taught in this course. The project idea must be pre-approved by the instructor by the last day of class (not afterward).

ADA Compliance: Will work with Office of Disabilities Services (203 WHIT, 474-7043) to provide reasonable accommodation to students with disabilities.
Class schedule

July 11, 2013; Lecture
Lecture, 6-9 pm (3 hours)
- Introductions
- Review of syllabus and references used in the course
- General plant morphology needed for identifying and describing plants
- Causes for the morphological variation observed in nature
- Exercise in creating and using technical keys

July 13, 2013; Lecture and Field
Lecture, 10-12 pm (2 hours)
- Biological classification & naming
- Introduction to plant families: mustards (Brassicaceae), roses (Rosaceae), and chickweeds (Caryophyllaceae)
- Practice using technical keys
Field trip, 1-4 pm (3 hours),
Visit boreal forest habitats on campus. Please, be prepared for the weather, mosquitoes, and walking on wet and undulating ground. Bring snacks, water, hand lens, notebook and collecting bags.

July 18, 2013; Lecture
Lecture, 6-9 pm (3 hours)
- Introduction to plant families: buttercups (Ranunculaceae), heaths (Ericaceae), peas (Fabaceae), birches (Betulaceae) and willows (Salicaceae)
- Use of keys for these families and those introduced previously

July 20, 2013; Lecture and Field
Lecture, 10-12 pm (2 hours)
- Quick review of previously introduced families
- Introduction to plant families: sunflowers/asters (Asteraceae), figworts (Scrophulariaceae), saxifrages (Saxifragaceae)
- Introduction to ferns and related groups, and common monocot families: grasses (Poaceae), sedges (Cyperaceae), rushes (Juncaceae), lilies (Liliaceae) and orchids (Orchidaceae)
- Use of keys for these families and those introduced previously
Field trip, 1-4 pm (3 hours)
Visit mid-elevation site at Murphy Dome to access sub-alpine habitats.
- Class field quiz: field recognition of 5 plant families, notebooks can be consulted for family determinations
Again, please be prepared for the weather, mosquitoes, and walking on wet and undulating ground. Bring snacks, water, hand lens, notebook and collecting bags.

Final Project is due in my email inbox OR my department mailbox in Irving 211 by 5pm July 23.