Biol 475, Vegetation Description and Analysis
Fall Semester 2006, 2 hours credit

Lectures: Mondays, 1-2 pm; Labs: Mondays, 2:15-5:15 pm

Introduction

Goals:
The goals for the course are: *(1) to provide students with a basic set of sampling and analysis methods used in vegetation science, and (2) to develop an understanding and appreciation of vegetation, its composition structure and function, its wide diversity, and role in local, regional and global ecosystems.*

This course will give students a broad overview of concepts and methods of description and analysis of plant community data. These methods of vegetation science include vegetation sampling, classification, and gradient analysis, and understanding the relationship of species distributions to their environment. Most of the class will be devoted to obtaining basic skills of vegetation sampling and analysis. The first few labs will be mainly in the field before the weather turns cold and snowy. The second part of the course will be in the herbarium, soils lab, and computer lab, where we will analyze the data collected from the field.

Students will collect a set of field data that they will use for analysis and production of a final written report and oral report that will be due at the end of the course. There are no exams. There are several graded exercises that are essential to understanding the material.

Professor:
The instructor for this course is **Prof. Skip Walker**, who also directs the Alaska Geobotany Center (AGC). He is an active researcher in the fields of plant community and landscape ecology with a focus in arctic and alpine systems, vegetation mapping using geographic information systems and remote sensing, and disturbance and recovery of arctic vegetation. **Dr. Patrick Kuss** will also assist with the course and provide a European perspective on vegetation analysis.

Classroom and meeting times:
Lectures will be at 1-2 pm, Mondays in Irving Rm 103, Labs will be Mondays either in the field or in Room 103 or in the computer lab Irving Room 303, 2:15 to 5:15 pm.

Office hours and contact:
Students should feel free to drop by at any time or by appointment in Arctic Health, Room 254. Phone 474-2460, ffdaw@uaf.edu. Home phone: 451-0800.

Textbook and supplies:
Students should purchase:

   Kent, M. and P. Coker. 1996. *Vegetation description and analysis: a practical approach*.
      New York, John Wiley, 363 pp + diskette.

Other textbooks will also be used and these material will be put on reserve in the Biosciences
Library in the Arctic Health Building.

Students should also have:
      10x-power hand lens for field identification of plants
      8.5 x 11 inch notebook and Scotch tape for field reference collection.
      Gallon-size plastic bags for field collections.

Prerequisites: Biol 474 or other general ecology, or permission of the instructor.

Grading and class policies:
Grades will be based on the following criteria:
   Homework assignments (4 @ 100 pt each):   400
   Final talk: 200
   Attendance   100
   Class participation   50
   TOTAL   750

Note: These criteria may be modified somewhat as the course progresses. Final grades will be as
follows: greater than or equal to 90% = A; 80-89% = B; 70-79% = C; 60-69% = D; < 60% = F.

Students are expected to attend every class and lab. Five points will be deducted for missing
class without a prior excuse.

Assignments are due at the beginning of class on the days shown in the syllabus. 5 points will be
deducted for every day an assignment is late.

The instructor will work with the Office of Disabilities Services (203 WHIT, 474 7043, to
provide reasonable accommodation to students with disabilities,

Instructional method:
The 1-2 pm time slot will generally be devoted to lectures and discussion of sampling and
vegetation analysis methods. Laboratories will be spread among the following activities: (1) field
sampling methods, 5 labs; (2) herbarium and plant identification, 1 labs; (3) soils, 1 lab; (4)
computer labs, 1 lab for data entry, 2 labs for classification, and 3 labs for ordination, 1 lab for
final presentations.