

NRM 240 – Natural Resources Measurement and  
Inventory  
Fall 2015

research and data analysis can lead to an understanding of resource management including problem-solving and decision-making.

The lectures will focus on the theory and application of inventory techniques and design used to assess natural resource availability and condition. The student will develop an understanding of the use of these techniques to meet management objectives. The lab component will focus on traditional and state-of-the-art equipment used for inventory. Basic analysis of information collected in the laboratory will give the students an idea of how the field measurements can be used to develop a knowledge base of the natural resource that is being managed and yield information that is needed for resource planning and potential problem solving

### Course Goals

This course has been designed to develop an understanding of how resource management problem-solving and decision-making is based on measurements of the environment of interest and the human interaction. Data analysis techniques will be emphasized to gain an understanding of the natural and human characteristics tied to management of a natural resource.

### Student Learning Outcomes

Upon completion of this course students should be able to:

- 1) Develop an understanding of inventory techniques.
- 2) Develop an understanding of methods used to derive sound estimates of resource properties.
- 3) Critical thinking about methods used to obtain resource information on specific landscapes and the management suggested as a result of those measurements.
- 4) Critical thinking about methods described in published articles.
- 5) Develop an understanding of how to measure the human perceptions tied to natural resource management.

### Instructional Methods

Presentation of material for this course will include lectures, instructor led discussions,

In addition to a mid-term and final exam, students will be responsible for thirteen lab write-ups and six assignments (generally problem sets or short-answer questions) over the course of the semester. Lab write-ups will be due at the next lab session, unless otherwise noted. Assignments will be handed out in class and also made available on Blackboard. The due date will be clearly marked on all assignments...

### Attendance

The student is responsible for all material distributed and presented in lectures and laboratory. Lecture attendance is important.

The student code of conduct can be found in the current UAF catalog and at the following website: <http://www.uaf.edu/catalog/current/academics/regs3.html>.

during posted office hours and upon appointment for additional assistance outside session hours.

## Disabilities Services

The Forest Sciences Department will work with the Office of Disability Services to provide reasonable accommodation to students with disabilities. Disability Services provide a variety of services to assure equal access for all students. Interpreting services, educational assistants, note taking, and exam accommodations for students are the most frequently provided accommodations. Disability services also provides assistance to the university's rural campuses; Tanana Valley Campus, Bristol Bay, Chukchi, Interior-Aleutians, Kuskokwim, and Northwest.

The staff of Disability Services works with faculty in arranging appropriate services in the classroom. Questions should be directed to the Director of Disability Services at (907)-474-5655.

<http://www.uaf.edu/disability/>

## Course Calendar – Lecture Schedule

Date	Lecture Topic (M, W)	Reading Assignment
------	----------------------	-----------------------

12/9	Recreational (L26)	Chapter 18
12/16	FINAL EXAM 10:15– 12:15	

A Tentative lab schedule is:

Date	Lab Topic (Thursday)	Lab Assignment Due
9/10	Vegetation sampling: fuel loads	
9/17	Measuring individual trees	Lab #1 due
9/24	Fixed area sampling	Lab #2 due
10/1	Point sampling	Lab #3 due
10/8	Compass and Maps	Lab #4 due
10/15	Probability and CLT	Lab #5 due
10/22	Hypothesis testing	Lab #6 due
10/29	Sampling	Lab #7 due
11/5	Tree growth	Lab #8 due
11/12	Wildlife population dynamics	Lab #9 due
11/19	Mark and recapture	Lab #10 due

7. Reporting Grades: All student grades, transcripts and tuition information are available on line at <http://ww.uaonline.alaska.edu>