

NRM 240 – Natural Resources Measurement and Inventory

Instructor – Nancy Fresco

Lectures - MWF 10:30 -11:30 (305 O'Neill Bldg)

Lab – Thur 2:00 – 5:00 (359 O'Neill Bldg)

Office Hours – Tues 1:30-3:00, Thurs 9-11, or by appointment

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Textbook and additional reading material:

There is no textbook for this class. Books to be placed on reserve in the library are:

Husch, Bertram, Charles I. Miller and Tomas W. Beers 1982. Forest Mensuration. John Wiley & Sons. 402 pgs.

Avery, Thomas Eugene and Harold E. Burkhardt. 2002. Forest Measurements. McGraw-Hill.456 pgs.

Additional reading material will include articles selected from published scientific literature as well as from reports produced by resource management agencies. These materials will be made available in class and via Blackboard and web links.

Course Description

This course is intended to familiarize students with terminology, tools, techniques, and statistical analysis used in measuring key components of natural resources. The components include land, timber, vegetation, water, wildlife resources, human dimensions, and agriculture/range resources. The course is designed to develop a basic understanding of how to design and set up a survey or inventory, conduct field measurements, and statistically analyze data. This will lead to an improved understanding of resource management problem-solving and decision-making.

Course Goals

This course has been designed to develop students' understanding of how resource management problem-solving and decision-making is based on measurements of the environment of interest, assessment of human interactions with the environment, and statistical analysis of resource measurements. Critical thinking, field techniques, and data analysis will all be emphasized.

Student Learning Outcomes

Upon completion of this course students should be able to:

- 1) Understand and describe a range of inventory techniques for natural resource measurement;
- 2) Use critical thinking to select appropriate measurement and inventory techniques for different resource types under differing circumstances and in various landscapes;
- 3) Statistically analyze inventory results in order to derive sound estimates of resource properties;
- 4) Meaningfully critique inventory and measurements methods described in published articles or reports;
- 5) Develop an understanding of the human perceptions tied to natural resource management, and how to measure and account for these perceptions.


Instructional Methods

Presentation of material for this course will include lectures, instructor-led discussions, student-led discussions, and assignments. Students are expected to

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>.

Grading

The grade received in this course will be based upon performance on exams, homework and lab assignments, and attendance. The following weighting scale will be used

<u>Components of grade</u>		<u>Requirements for letter grade</u>	
<i>Midterm Exam</i>	25%	A+ > 96% A 93% to 96% A- 90% to 92%	C+ 77% to 79% C 70% to 76%
			

Course Calendar – Lecture and Lab Schedule

Week	Date	Topic
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draft before final submission for a grade. Written assignments may be emailed or turned in during class to the instructor.

9. **Plagiarism:** Plagiarism is using what another person has written, and using it as your own words and thoughts. Plagiarism is never acceptable. According to the University, plagiarism is preventable by students “not representing the work of others as their own. A student will attribute the source of information not original with himself or herself (direct quotes or paraphrases) in compositions, theses and other reports.” The UAF Honor Code (Student Code of Conduct) defines the academic standards expected at UAF and is adhered to in this class as well.

10. All UA student academics and regulations are adhered to in this course. You may find these in UAF/UAS Catalogs.

11. **Confidentiality:** An important part of this course is ng whn at 62ct qecademddth Tc 0.00h11.2 >>(s)