

# **NRM 240 – Natural Resources Measurement and Inventory**

**Instructor** – Dr. John Yarie

**Lectures** - MWF 10:30 -11:30 (305 O’Neill Bldg.)

**Lab** – Thur 2:00 – 5:00 (359 O’Neill Bldg.)

**Office Hrs** – 337 O’Neill, 1P – 4:30P TWF,

**Telephone No.** - 474-5650 (Yarie);

**Email** - [jyarie@alaska.edu](mailto:jyarie@alaska.edu)

**Textbook and additional reading material:**

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

In addition course material will be provided via Blackboard, with occasional handouts in class and web links.

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. Burkhart. 2002. Forest Measurements. McGraw-Hill.456 pgs.

Additional reading material could include:

Ravindranath, N. H. and Madelene Ostwald. 2008. Carbon Inventory Methods;

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, student led discussions, and assignments. Students are expected to complete reading assignments prior to each lecture. Assigned homework is expected as scheduled on the course outline.

## **Assignments**

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>.

### **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>Exams</i>	15% each	A+ > 96%	C+ 77% to 79%
<i>Final Exam</i>	25%	A 93% to 96%	C 70% to 76%
<i>Class Assignments</i>	10%	A- 90% to 92%	
<i>Lab Assignments</i>	35%	B+ 87% to 89%	D 60% to 69%
		B 83% to 86%	
		B- 80% to 82%	

## **Disabilities Services**



**A Tentative lab schedule is:**


and the paper easy to read. The burden is always on the writer to communicate with the reader. UAF has a writing lab and other tutoring services available to students (474-5314). It is also recommended that you have another person review your 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 the sharing of insights and experiences with other students. To benefit from this discussion, it is essential that we all maintain the confidentiality of children, families,