

NRM 4304 Range Inventory and Analysis  
Fall 2014

Instructor:

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Office Hours: 1:00-3:00 Tuesday and Thursday. Please make an appointment if possible so that you don't have to wait in line. I am also available at other times by appointment.

Course description:

The methodology of measuring and analyzing plant communities and populations. Statistical summarization, analysis and sampling are covered. Demonstrations of techniques used to inventory rangeland resources, such as; vegetation inventory and analysis, range condition and trend, and forage production and utilization. Upon completion of the course the student should be able to develop management plans and techniques to inventory and analyze rangeland plant communities.

Class meetings and Tentative course outline:

<b>Week</b>	<b>Lecture</b>	<b>Lab</b>
1	Introduction and the Scientific Method and remote sensing	Mimms ranch remote sensing
2	Quadrat sampling	Introduction to cover and biomass sampling with a quadrat
3	Dominance	Biomass sampling
4	Calculating carrying capacity	Finalize biomass sampling
5	Density and Frequency	Calculation of carrying capacity based on biomass samples from Mimms
6	Summary calculations	Monitoring project introduction
7	Midterm	Monitoring project
8	Line intercept	Monitoring project
9	Gap intercept	Monitoring project
10	Summary calculations	Monitoring project
11	Point step and summary calculations	Monitoring project

12	PCQ and summary calculations	Summary calculations for monitoring project
13	Rangeland health and erosion	Summary calculations for monitoring project
14	Work on final report	Final report due
Final	Field based final exam Monday Dec. 8th 10:00	

Required Text:

None

Readings will be posted on Blackboard

Equipment:

Appropriate equipment will be checked out to you prior to each field day for completion of that day's work.

You will be issued an ipad mini at the first of the semester and will use it to collect all your field data in the app Numbers. This is a pilot so we will see how using the ipad minis and icloud works for the class. Your honest feedback on their use in the class will be appreciated.

Learning objectives

1. Students will be able to list and discuss all common vegetation inventory techniques.
2. Students will be able to apply these techniques and evaluate the data collected.
3. Students will be able to apply this information in the field by designing and planning a vegetation inventory project for implementing in inventory in lab. This will be accomplished by identifying and selecting proper methods for different vegetation types.

Program Learning Outcomes

This course addresses the NRM B.S. PLO 4) Conduct range and wildlife inventories in a team setting.

Class Organization:

1. Roll will be taken during each class meeting by participation in weekly recall and quizzes. The SRSU catalog states "The instructor may, at his discretion, drop a student from a course when the student has a total of nine absences. An absence is defined as non-attendance in fifty minutes of class. Non-attendance in a one and one-half hour class will constitute one and one-half absences."
2. Cheating on any exam or assignment will result in an F for that material and possible expulsion from the class with a grade of F.
- 3.. Missed exam policy: No make-up exams will be provided for unexcused missed exam. If you miss an exam without an excused absence, you will receive a score of 0 for that exam. Makeup exams will be available for authorized absences but must be completed within one week of the original exam date.

4. If you miss a lecture, you may obtain notes from a willing classmate. Handouts, and assignments may be obtained from me

5. It is Sul Ross State University Policy to provide reasonable accommodation to students with disabilities. If you would like to request such accommodations because of physical, mental, or learning disability, please contact the ADA Coordinator for Program Accessibility 837-8203.

Grades:

Carrying capacity Project	50 points
Field Exercises	200 points
Monitoring Project and report	150 points
Midterm	100 points
Final	100 points

Grade assignment:

<60 = F; 60-69 = D; 70-79 = C; 80-89 = B; 90-100 = A;