NRM 5306 - GIS, GPS and Remote Sensing
Syllabus - Spring 2016

Lecture/Lab Times: 1-2pm (lecture) 2-5pm (lab) Wednesdays in RAS 126

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Required Text: None.

Course Description: An advanced course on the rapidly growing geographic technology used by natural resource managers and scientists including: geographic information systems (GIS), global positioning systems (GPS), and remote sensing methods.

Course Objective: Students will be introduced to new and advanced techniques for GIS, GPS, and remote sensing. Specifically, upon course completion students shall understand:

- The latest technologies in this field.
- How to use a GPS to collect data, import it into a GIS, and analyze it.
- How and where to find GIS and remote sensing data.
- How to access and use the web soil survey data available on the internet.
- Mapping a ranch from start to finish including providing printed report and maps

Grading:
40% Attendance and Participation
60% Final Project

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

Attendance and Participation: Attendance and participation represents 40% of your final grade. You will be graded based on your contributions and participation during class discussions and field/lab activities. You will also be graded based on your class attendance. Because the class only meets one day a week, attendance is essential. There are 15 regular class days and students will be allowed 2 "explained" absences. Notify instructor prior to explained absences. Additional absences will result in a 5% reduction in your grade (e.g., 3 absences = -5%, 4 absences = -10%, etc). Students will only be counted as "present" in class if they attend the entire class period.

Final Projects: Students will be working as a pair on a ranch mapping project. Details will be discussed in class.

Assistance: Primary assistance by instructors will be provided during scheduled class times. Arrangements can be made for additional help as needed.

Academic Dishonesty: Academic dishonesty includes copying, sharing, or obtaining information from an unauthorized source, attempting to take credit for the intellectual work of another person, falsifying information, and giving or receiving information about a test, quiz, or assignment to other students. Any student involved in academic dishonesty will receive no credit (0) for work done and/or may be penalized in accordance with published University Rules.

Counseling and Accessibility Services: 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 Counseling and Accessibility Services in Ferguson Hall (room 112) or call 432 837-8203.

Additional Outcome Objectives as Required by the Southern Association of Colleges and Schools:

Program Learning Outcomes for the M.Agr. in Range and Wildlife Management

The graduating student will demonstrate that he/she is able to:

1. Apply statistical concepts and procedures to natural resource data
2. Evaluate literature and references as they apply to the natural resource field
3. Demonstrate their knowledge of the fundamentals and advanced concepts of range and wildlife management.

Program Learning Outcomes for the M.S. in Range and Wildlife Management

The graduating student will demonstrate that he/she is able to:

1. Apply statistical concepts and procedures to natural resource data
2. Evaluate literature and references to substantiate an applied research project.
3. Examine, select, and utilize appropriate resources, materials, and data collection instruments to implement research projects.
4. Justify and defend the research questions and design.

Tentative Course Schedule – Spring 2016

Date	Lecture/Lab
20-Jan	Introduction and project planning
27-Jan	Project planning
3-Feb	Downloading base layers/data sources
10-Feb	Soils Data Viewer, working with soils, ecological maps/Data collection in lab
17-Feb	Texas Ecological Mapping System/Data collection in lab
24-Feb	Discuss field data collection and create data dictionary
2-Mar	Field Data Collection
9-Mar	Creating a Map Template
16-Mar	Spring Break
23-Mar	Develop maps
30-Mar	Develop maps
6-Apr	Develop maps
13-Apr	Creating Google Earth Package
20-Apr	Work on final products
27-Apr	Work on final products
4-May	Presentation of Final Products