

NRM 4305
Wildlife Management Techniques
Spring

Lecture Times: 10:30-12:15 TTh_ Office Hours: TTh 8:00-9:00

Instructor: Dr. Ryan S. Luna
Phone: (432) 837-8615
email: rluna@sulross.edu
Office: Everett E. Turner Range Animal Science Center, Room 113

Required Text: Silvy, N.J. (Ed.). 2012. The Wildlife Techniques Manual. seventh edition. The Wildlife Society, Bethesda, Maryland, USA.

Catalog Description: Habitat inventory and evaluation techniques, census methods; age and sex criteria; banding data analysis; research methods in wildlife management.

Course Objective: To provide the student with an understanding of the fundamental techniques used in wildlife research and management.

Grading:	20%	Research Project, Presentation, and Report	Scale: 90-100% = A 80-89% = B 70-79% = C 60-69% = D <60% = F
	10%	Attendance & Participation	
	15%	Technique Summaries (5% each)	
	10%	Lab Practical	
	15%	Lab & Lecture Assignments, Quizzes	
	10%	Exam I	
	10%	Exam II	
	10%	Exam III (Final)	

Attendance: No make-up exams will be given for unexcused absences. Notify instructor prior to excused absences. All late assignments will receive a **0**.

Accommodations: 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 disabilities please contact the ADA coordinator for Program Accessibility located in Room 206 of the Briscoe Administration Building, or call 432-837-8203.

Program learning objectives:

Program Learning Outcomes for the **B.S. in Natural Resource Management**

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

1. Identify species of wildland plants and wildlife common to the western United States and describe their natural history.
2. Demonstrate knowledge of the elements of an ecosystem.
3. Communicate about natural resources and conservation both verbally and in writing.
4. Conduct range and wildlife inventories in a team setting.
5. Apply knowledge of an ecosystem into an appropriate conservation management plan.

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.

NRM 4305
Wildlife Management Techniques
Tentative Schedule-Spring

Week	Chapters	Subjects
1	NA	Course Outline, Class Introductions, Resumes
2	2	Scientific Writing, Presentations, and Wildlife Literature
3	3, 4	Scientific Method, Research Design, and Statistical Methods, Summary I Due (1/31)
4	15, 18, 20	Habitat Measurements, Maps, GPS, GIS, Remote Sensing, Literature Cited (2/7), EXAM I (2/7)
5	7, 10	Trapping
6	10, 11	Chemical Immobilization
7	12, 13	Age and Sex Criteria, Marking Techniques, Summary II Due (3/2)
8	14	Radiotelemetry, First Draft of Report (3/7)
9	14, 6	SPRING BREAK
10		Population Analysis; EXAM II (3/21)
11	5, 6	Population Estimates I,
12	5, 6	Population Estimates II, Summary III Due (4/4)
13	17	Habitat and Food Use
14	21, 23, 24	Animal Behavior, Conservation Genetics, Wildlife Nutrition
15	NA	Reports Due (4/23) and Presentations (4/26)
16	NA	Lab Practical (4/30); Revised Resume and Final Review (5/2)
-	NA	EXAM III (during scheduled final)

Research Projects: The class will be divided into groups (~4-5 students/group). Each group will be responsible for developing a research project, making a professional quality presentation, and submitting a final written report (manuscript). Each member of the group will participate in all aspects of the research project. **A literature review (n >15 sources) is due 8 February. The first draft of the intro, study area, and methods is due 8 March (revision will be due within a week of being returned). The final draft of the manuscript is due 24 April.** Style of plans should follow the Journal of Wildlife Management. The manuscript should be ≥ 8 pages, 12 pt., double-spaced, and with ≥ 20 citations (no WWW citations), and include at least 1 figure and 1 table in the appropriate style. An electronic copy should be provided with the manuscript. Data collection should begin as early as possible.

Presentations: The presentation will be of professional quality, should be 15 minutes (12 min presentation, 3 min questions), and will be given to NRM faculty, TPWD staff, and students. Attire should be appropriate for a professional meeting.

Rough Outline for Manuscript:

Abstract

Introduction (not labeled as such)

Justification & Objectives

Study Area

Land use--a history of the area

Location--size, ecoregion, ...

Description--soils, topography, cover types, fauna...

Methods

Specific to the objectives

Results

Tables and figures referenced and cited

Discussion

Assumptions

Compare your results to previous literature

Conclusion

What does it all mean? Mention future research or management

Literature Cited

Assistance: I will be happy to review your progress on the project. In addition, the Writing Lab, located MAB 102, is open from 9-5 M-F. This lab is geared toward helping students write papers.

Tentative Subjects:

Scaled quail (population estimation, movements, loafing and roosting habitat)

Urban deer project (density, capture techniques, survival, movements)

Small mammals, fox, raccoon, others???

Grassland birds

NRM 4305-LAB
Wildlife Management Techniques
Tentative Schedule-Spring

Week	Subjects
1	No Lab
2	Research Projects
3	Trapping
4	OPEN
5	Compass, Maps, and Surveying; GPS, GIS, Remote Sensing, Habitat Measurements
6	Chemical Immobilization, Marking Techniques
7	Age and Sex Criteria
8	Radiotelemetry
9	SPRING BREAK
10	Radiotelemetry, Home Range, Movements in GIS
11	Population Estimates
12	Population Estimates
13	Habitat and Food Use
14	Research Projects
15	Review (4/26)
16	Lab Practical (5/2)