

Grazing Management
RWM 6339
Lecture: TT 11:00-12:00 VIN 289

INSTRUCTOR: Cody B. Scott, VIN 222, 942-2027 Ext. 284
or 659-4148 after 5 pm. Cody.Scott@angelo.edu

Office Hours: See attached schedule. Anytime my office door is open.

Course Objective:

Designed to provide a synthesis of literature and managerial principles pertaining to management of grazing animals on rangelands. Our objective is not to fill a notebook with facts and figures, but to understand the knowledge base of grazing management and to identify any weaknesses that will affect successful grazing management. In the end, I hope that we will leave this class with new ideas and approaches to managing grazing situations.

We will begin the semester by discussing the methods of science and the type of information developed from each method. I believe that it is critical the graduate students understand the methods of science so that they are able to identify those studies that provide new understanding regarding the mechanisms of nature and those that simply describe patterns in nature.

Afterwards we will review the history grazing management and the current paradigms in place. This will be followed by an in depth discussion of how plants respond to herbivory. This is particularly important because ultimately range and animal production is dependent on how preferred and nonpreferred forages respond to animal disturbance. As a related issue, we will briefly discuss rangeland hydrology and how livestock grazing impacts erosion, infiltration and water pollution.

Finally, we will discuss diet and habitat selection. I believe that the future of grazing management involves manipulating animal feeding patterns rather than expensive efforts to manipulate rangeland components.

Text and Readings: There is not a required text for this class. Several required readings will be assigned throughout the course. Students will be expected to read assigned readings prior to class meeting and prepare a brief summary to aid in class discussions. In class, we will develop discussions to address specific questions posed by the instructor. Participating in class discussions is a *requirement* for students to receive a respectable grade. To encourage students to read each article, a pop quiz will follow most of the readings. The pop quizzes are not necessarily to punish you, but to aid you in developing critical reading skills.

Notes and Lectures: Each student should purchase a copy of the lecture notes available through the ASU bookstore. Notes are provided because I believe the most efficient way for students to learn is through participation. It is very difficult to participate in class discussions or to raise questions if you are writing down every-other-statement made by the instructor. By providing notes, each student will be free to listen, think, and add to discussions in class. I believe this is especially crucial in classes dealing with applied sciences like Range and Animal Science because for several of the issues we will discuss there is no right or wrong answer.

As a related issue, simply reading the notes and articles will not suffice. Several topics and ancillary information will be presented in the lectures that is not specifically listed in the notes. The notes are written in an outline format with the assumption that you will add information as we discuss each topic.

Grading:

<i>Grading</i>	<i>Points</i>	<i>Percent of Grade</i>
Quiz #1	100	25%
Quiz #2	100	25%
Quiz #3	100	25%
Pop Quizzes	100	25%

The relationship between total points and the assigned grade will be as follows:

<u>Total Points</u>	<u>Grade</u>
400-358	A
357-318	B
317-278	C
<277	F

Your grade at the end of the semester will reflect the total number of points that you have acquired. The course is designed so that you can earn a respectable grade if you participate in class and turn in all of your quizzes on time. If you have a problem turning in your assignments or in attending class, please let me know. If you have a valid excuse, then I will allow you to turn in your assignments late. Otherwise, there will be a severe loss of points on your quiz grade. Because I believe that participation is crucial for effective learning, the effort you place on discussing issues in class could improve your grade. I reserve the right to increase your letter grade, but only if your efforts suggest to me that you have completely read all assignments and you capitalized on opportunities to ask questions and discuss key points.

Schedule:

Below, I have listed a tentative schedule of lectures, readings, and quizzes. Keep in mind that the schedule may vary depending on the time it takes to cover each topic. I will announce in class when articles must be read and the date of the next exam.

**Tentative Schedule for RWM 6339
Grazing Management**

<u>Date</u>	<u>Subject</u>
Jan 20	Introduction, Overview, Syllabus
Jan 22	<i>Discussion: Romesburg</i>
Jan 27	Planning and Science
Jan 29	Planning and Science
Feb 3	<i>Discussion: Briske and Heitschmidt</i>
Feb 5	Grazing Management: Past and Present
Feb 10	<i>Discussion: Walker</i>
Feb 12	Grazing Management: Past and Present
Feb 17	Grazing Management: Past and Present
Feb 19	Grazing Management: Past and Present
Feb 24	<i>Discussion: Taylor et al.</i>
Feb 26	Managing Animals on Rangelands
Mar 2	Managing Animals on Rangelands
Mar 4	Quiz #1 ; <i>Discussion: Briske</i>
Mar 9	Plant Responses to Herbivory
Mar 11	<i>Discussion: Bryant et al.</i>
Mar 15-19	Spring Break
Mar 23	Plant Responses to Herbivory
Mar 25	<i>Discussion: Thurow</i>
Mar 30	Rangeland Hydrology and Grazing
Apr 1	Rangeland Hydrology and Grazing
Apr 6	Quiz #2 ; <i>Discussion: Gracia</i>
Apr 8	Nutrition and Behavior
Apr 13	Nutrition and Behavior
Apr 15	<i>Discussion: Provenza</i>
Apr 20	Selection of Forage by Herbivores
Apr 22	Selection of Forage by Herbivores
Apr 27	<i>Discussion: Bailey et al.</i>
Apr 29	Habitat Selection by Herbivores
May 4	Habitat Selection by Herbivores
May 6	Where do we go from here?
May 11	Quiz #3 due @ 10:30 am