

RCH 3301
Sustainability in Agriculture
Summer 2024

Professors:

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Course description:

This course provides an in depth look at environmental, social, and economic sustainability on a global to local scale. Emphasis will be placed on how ranchers and land managers can provide for long-term sustainability through planning and implementation of sustainable practices.

Class meetings:

The class will be held as a Texas ranch field class and will be meeting June 17th-June 22nd.

Tentative Course Outline:

See the attached itinerary.

Learning Objectives

1. Students will learn about the agricultural industry in Texas and be able to identify: major challenges to sustainability in Texas; Texas's role in global agricultural market; Texas's impact on and relationship with U.S. agricultural industry.
2. Students will be able to analyze how decisions by ranch managers, landholders, and scientists in Texas are affecting sustainable practices and the environmental, economic, and societal pressures that are helping or hindering these practices.
3. Students will be able to evaluate management practices in agriculture in Texas and determine the level of sustainability and best practices that are being applied or developed.

Marketable Skills:

1. Students will develop skills in oral and written communication
2. Learning through workshops in an adult learning framework
3. Decision making and analysis of industry practices

Required Text:

None: Readings will be assigned.

Packing List:

You will need to pack for being on ranches and walking around pastures every day. Make sure you bring hat and clothes that are comfortable in the heat. You will need to bring your own sunscreen and bug repellent based on personal preference. We will have some downtime in hotels and may be able to go to the Gulf of Mexico if time permits.

Bring a water bottle that can be filled in the morning and last until the evening.

You are responsible for paying for your own food. We will have options for lunch and supper each day. Breakfast will be free in hotels each morning. You may want to bring a small cooler. We will have the opportunity to go to grocery stores if you want to have your own food and snacks.

We will be staying at hotels and one ranch house and you will not need to bring linens, sleeping bag or towels unless you prefer to have your own.

Bring something to record your journal, this may be a laptop, tablet, phone, or notebook. You will need to take pictures so make sure you have a phone with a camera or a standalone camera.

Class Organization

1. This is a field based class to different places in Texas. You will be expected to act appropriately as ambassadors for Sul Ross State University. You are expected to be on time and ready for each day's activities. Be aware of your own personal safety and be responsible for your actions. Participation is a large part of the grade and you will be graded on your level of interaction, your attitude, and your professionalism.
2. You will be expected to complete you own work. Cheating on an assignment will result in an F for that material and possible expulsion from the class with a grade of F.
3. 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. This must be done prior to leaving on the trip.
4. Please let me know at the first of the class if you have any dietary preferences or health issues that may impact your participation

Grades:

Field trip participation	25% (50 points)
Assignments	75% (150 points)

Photo Scavenger Hunt (65 points): You will be given prompts on items, examples, situations to find and photograph during the trip. You will put your pictures into a power point with one prompt per slide. Each slide will contain the prompt, photo, and caption explaining how the photograph illustrates the prompt. This will be turned in on Blackboard.

Journal (80 points): You will be keeping a daily journal of thoughts, activities, and observations. This can be done electronically or hard copy and will be turned in at the end of the class to be graded. You will be given question prompts to help you focus your thinking for your journal. This will be turned in on Blackboard.

Itinerary

Monday: Visit the O2 Ranch (<https://www.lykesranch.com/02ranch.cfm>) south of Alpine Texas, Ranch Manager Will Juett and Center for Big Bend Studies faculty will lead the tour and talk about ranch management, history, and cultural artifacts in a ranching setting. Visit the Mimms Ranch (<https://dixonwater.org/ranches/mimms-unit/>) near Marfa Texas, Ranch Manager

Zach Vaughn will lead the tour and talk about the mission of the Dixon Water Foundation and ranch management. Drive to Decatur, Texas.

Monday night: Hotel in Decatur, Texas

Tuesday: Visit the Leo Ranch (<https://dixonwater.org/ranches/leo-and-pittman-units/>) near Decatur Texas. Casey Wade and Jake McNamara will lead the tour. Compare and contrast how the same grazing system differs from the Mimms ranch. Drive to Ardmore, OK

Tuesday night: Hotel in Ardmore, OK

Wednesday: Visit the Noble Foundation (<https://www.noble.org/>) in Ardmore, OK. Joe Pokay, the general ranch manager, will be leading the tour and discuss the mission of Noble and how they are supporting sustainable and regenerative agriculture. Drive to Austin.

Wednesday night: Stay at the ranch house of the Shield Ranch

Thursday: Visit the Shield Ranch (<https://www.shieldranch.com/barton-creek/>) near Austin, TX. Blake Merden and Grant Lawrence will lead the tour and discuss how ranching in a rapidly urbanizing area presents opportunities and challenges. Drive to Victoria, TX

Thursday night: Hotel in Victoria, TX

Friday: Tour the JF Welder Heirs ranch and Sarco Creek Cattle Company.

Friday night: Hotel in Victoria, TX

Saturday: Drive back to Alpine.

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

Student 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.

This course will address SLOs 2 and 3.