

NRM 5321 – Conservation Biology

Course Syllabus | Fall 2024

Course Information

Instructor

Dr. Maureen Frank

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Office: RAS 113

(830) 261-0539 (cell, 9-5 daily, can text or call)

Office Hours

M/W/F, 9:00 – 11:00am

Or by appointment

Class Meeting Time/Place

This is an online class with readings that replace formal lectures. Blackboard will be used for all email communications, announcements, discussions, reading assignments, and grades.

Course Description

This is an advanced course exploring conservation-oriented research, including threats to biodiversity, biogeography, extinction, conservation genetics, landscape connectivity, endangered species conservation, ecological restoration, and conservation education.

Expanded Course Description

Conservation biology is fundamental to natural resource management. Whether you hope to work with endangered species or game species, private or public lands, for a state agency or a non-governmental organization, the concepts covered in this class will give you a foundation for understanding and applying current topics in conservation science.

This course will require you to complete readings from the textbook and from recent scientific articles. You will be expected to synthesize that information into a variety of formats, including written reports, recorded video presentations, and outreach publications. There will also be reading quizzes. These diverse assignments are designed to help you understand the breadth of the conservation field. Communication with the public and other scientists is increasingly important. I want you to feel confident in analyzing new information and in discussing your thoughts and ideas in a variety of formats.

Course Objectives

Students will learn the principles of conservation biology and how to apply these concepts to natural resource management. Specifically, upon course completion, students shall understand:

1. Biodiversity and its role in conservation,
2. Management of biodiversity in diverse ecosystems, and
3. The impact of humans and human systems on biodiversity and conservation efforts.

Student Learning Outcomes, M.S. in Range and Wildlife Management

1. Students will be able to apply statistical concepts and procedures to research.
2. Students will be able to evaluate literature and references to substantiate the applied research project.
3. Students will be able to justify and defend research questions and design.

Student Learning Outcomes, M.Ag. in Natural Resources Conservation

1. Students will be able to apply statistical concepts and procedures to natural resource data.
2. Students will be able to evaluate literature and references as they apply to the natural resource field.
3. Students will be able to demonstrate their knowledge of the fundamentals and advanced concepts of range and wildlife management.

Marketable Skills, M.Ag. in Natural Resources Conservation

1. Students will demonstrate knowledge of key Natural Resource Management topics.
2. Students will be able to apply knowledge to projects that include biostatistics, research methods, and scientific writing.
3. Students will demonstrate skills in scientific writing and analysis.

Course Materials and Policies

Textbook

You can purchase an e-book or physical textbook. **Be sure to get the 4th edition.**

Hunter, M. L., J. P. Gibbs, and V. D. Popescu. 2021. *Fundamentals of Conservation Biology*. 4th Ed. Hoboken, NJ, USA: Wiley Blackwell. 654 pp. **Required.**

Grading – Point Breakdown

		Grade Scale
Introductory assignments	80	89.5 – 100: A
Communicating science	100	79.5 – 89.4: B
Feedback discussions	60	69.5 – 79.4: C
Quizzes	60	59.5 – 69.4: D
Final project	150	0 – 59.4: F
Final exam	100	

Due Dates and Extensions

This course is structured into weekly time periods that begin on Monday and end on Sunday. All assignments are due by Sunday at 11:59pm unless otherwise specified. **No due dates for ANY graded work will be extended and no points will be given for late assignments except under extraordinary circumstances.** The student must initiate contact with the instructor to request an exception for late work. See the class schedule (posted in Blackboard) for the dates and assignments for each week.

Communication

You are required to check your Sul Ross email and Blackboard announcements several times per week. I do not use the personal or preferred email addresses that you may have on record with the university.

Assignments and Examinations

Introductory assignments: understanding scientific papers

Over the first 4 weeks, we will break down a scientific paper into its components and your assignments will help you understand how to read each part (20 points each).

Communicating science

You will choose a scientific paper to read and then summarize, both in writing and as a presentation (50 points each).

Feedback discussions

For each report/presentation, you will be assigned to review the work of 2 other classmates and provide meaningful feedback (10 points each).

Quizzes

You will have readings assigned from the textbook each week. At the end of each section, there will be a quiz. Please note that although each quiz is not worth a lot of points, the final is a significant portion of your grade, and it will include questions similar to those on the quizzes (3 quizzes, 20 points each).

Final project

You will choose a scientific paper to read and summarize either as a report or a presentation. This will look similar to the “communicating science” assignments that you do early in the semester, except that you will choose the format and the work will be expected to be longer and more thorough (150 points).

Final exam

Rather than a fourth quiz, you will take a final exam that covers material from all readings, assignments, and projects.

Academic Integrity

Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused; meaningful and pertinent participation is appreciated. Academic dishonesty hurts everyone and

reduces the value of college degrees. Examples of academic dishonesty include but are not limited to: turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on an examination or quiz when collaboration is forbidden; and using artificial intelligence software (e.g., ChatGPT) to write an assignment. It is your responsibility to read and understand the university's policy on academic dishonesty in the SRSU Student Handbook, as all violations will be taken seriously and handled through the appropriate university process. The Student Handbook can be found at: www.sulross.edu/wp-content/uploads/2020/09/student_handbook_2019-2020_revision_12.7.2020.pdf (Academic Honesty is on page 88-89). **Any student shown to violate academic integrity will receive no credit (score of 0) for work done and/or may be penalized in accordance with published University Rules.**

General Expectations

As this is a graduate-level course, I have high expectations for all students. I expect:

- Quality, graduate-level writing
- That you will seek assistance from the university help center if needed

You can expect graduate-level instruction from me. That includes:

- Providing you with prompt and meaningful feedback on your assignments

Many of the topics we discuss in this course will be contentious and there will probably be many different points of view amongst the class. As we cover these topics, I expect you to:

- Treat your classmates with respect, even if you do not agree with their viewpoints
- Defend your own opinions with logical rhetoric and not fallacies
- Avoid all ad hominem attacks, insults, or other derogatory comments against a person

You can expect me to:

- Serve as a moderator
- Provide current scientific information
- Articulate where science ends and policy or opinion begin
- Remain neutral in most discussions; when I give an opinion, you can expect me to show the same respect that I expect from you.

SRSU Distance Education Statement

Students enrolled in distance education courses have equal access to the university's academic support services, such as library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website.

Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires secure login. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website. Directions for filing a student complaint are located in the student handbook.

Resources

SRSU Disability Services (ADA Statement)

Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Alpine Students seeking accessibility/accommodations services must contact Mary Schwartz, LPC, SRSU's Accessibility Services Coordinator at 432-837-8203, or email mschwartz@sulross.edu. Our office is located on the first floor of Ferguson Hall – room 112, and our mailing address is P.O. Box C122, Sul Ross State University, Alpine. Texas, 79832.

Counseling Services

Sul Ross State University (SRSU) has partnered with TimelyCare, which is an online mental health support platform, and all SRSU students will have access to nine free counseling sessions. These can be accessed by visiting <https://timelycare.com/srsu>. Counseling is also offered in Ferguson Hall Room 112 in Alpine, and via telehealth Zoom sessions for remote students.

Library Information

The Bryan Wildenthal Memorial Library in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

Tutoring

If you need help with writing, please contact Graduate Student Support Services: gradcenter@sulross.edu or (432) 837-8524.

Blackboard Support Desk

If you have any technical issues with Blackboard itself, the Blackboard Support Desk is open 24 hours a day, 7 days a week. You can reach the support desk by calling (888) 837-6055, emailing blackboardsupport@sulross.edu, using resources from the Technology Support tab within Blackboard, or clicking the Support Desk graphic on the course homepage.

Tentative Course Schedule

Subject to change, please check Blackboard for updates.

Week	Dates (Mon-Sun)	Topic	Activities/Assignments <i>All due dates Sun. 11:59 PM Central</i>
1	8/26 – 9/1	Introduction	Introductory assignment 1
2	9/2 – 9/8	Biodiversity	Introductory assignment 2
3	9/9 – 9/15	Threats to Species	Introductory assignment 3, Quiz 1, CS article selection due
4	9/16 – 9/22	Global Change	Introductory assignment 4
5	9/23 – 9/29	Ecosystem Health	CS 1: Written summary (draft due)
6	9/30 – 10/6	Invasive Exotics	CS 1: Written summary (final due)
7	10/7 – 10/13	Protected Areas	CS 2: Quiz 2, written summary feedback
8	10/14 – 10/20	Sustainable Use	CS 2: Presentation (draft due)
9	10/21 – 10/27	Restoration	CS 3: Presentation (final due)
10	10/28 – 11/3	Urban Conservation	CS 3: Quiz 3, presentation feedback
11	11/4 – 11/10	Human Values	Final project (outline due)
12	11/11 – 11/17	Politics and Economics	Final project (draft due)
13	11/18 – 11/24	One Health	Final project (final due)
14	11/25 – 12/1	Review	<i>Nothing due – Happy Thanksgiving!</i>
15	12/2 – 12/8	Wrap-up	Final exam