

**NRM 2303 – Principles of Conservation Biology**  
**Syllabus – Spring 2024**

**Professor:**

Dr. Ryan S. Luna

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Office hours: 8-9 Tuesday

**Course Description:**

Introductory course on the fundamental issues in the discipline of conservation biology including conservation genetics, habitat fragmentation, natural resource sustainability, and island biogeography.

**Course Objectives:**

Students will be introduced to the general concepts of conservation biology. Specifically, upon course completion students shall understand:

- The discipline of conservation biology including its past, present, and future challenges.
- The meaning and importance of biodiversity including species diversity, ecosystem diversity, and genetic diversity.
- The threats to biodiversity including mass extinctions and global change, habitat fragmentation and loss, overexploitation, and invasive exotics.
- Methods of maintaining biodiversity through management and protection of individuals, populations, and ecosystems.
- The societal, economic, and political factors influencing conservation.

**Course Outline:**

**PART 1 – BIODIVERSITY AND ITS IMPORTANCE**

Week 1 Conservation and Conservation Biology

Week 2 What is Biodiversity?

Week 3 Species Diversity

Week 4 Ecosystem Diversity

Week 5 Genetic Diversity, **EXAM I**

**PART 2 – THREATS TO BIODIVERSITY**

Week 6 Mass Extinctions and Global Change

Week 7 Extinction Processes

Week 8 Ecosystem Degradation and Loss

**SPRING BREAK**

Week 9 Overexploitation

Week 10 Invasive Exotics, **EXAM II**

### PART 3 – MAINTAINING BIODIVERSITY

Week 11 Protecting Ecosystems

Week 12 Managing Ecosystems, Managing Populations

Week 13 Zoos and Gardens, **EXAM III**

### PART 4 – THE HUMAN FACTORS

Week 14 Social Factors

Week 15 Economics, Politics and Action

## **FINAL EXAM**

#### **Grading:**

Exam 1	20%
Exam 2	20%
Exam 3	20%
Exam 4	20%
Topic Debate & Paper	10%
Assignments & Participation	10%
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Total	100%

#### ***Exams***

Exams will be given during the regularly scheduled class time. Exams are not comprehensive but will cover that “part” or section of the class. Study questions are available at the end of each chapter in the book.

#### ***Assignments***

Assignments will pertain to material presented during lecture and will be due the following class period unless otherwise instructed.

#### ***Topic Debate & Paper***

During the second half of the class, students will be assigned to groups and will research a topic of interest in conservation biology. Students will prepare and written paper based on your research and present the paper in the form of a debate. More information will be given as the semester progresses.

#### ***Attendance***

Attendance is imperative for the successful completion of this course, but is ultimately the responsibility of the student. If you must be absent, you must contact the instructor BEFORE the scheduled class/exam. It is the student's responsibility to determine what information was missed and schedule make-up assignments. If you do not have a university approved excuse, you will receive a zero for work given that day. If you must miss a quiz/exam and have an approved university excuse, a make-up quiz/exam will be given during the scheduled final exam at the end of the semester or as arranged with instructor. Contact instructor for details.

### ***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 another student. 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.

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 in Briscoe Administration Building in Room 206 or call 432-837-8203.

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

#### ***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 about elements of an ecosystem into an appropriate conservation management plan.