

# **PRINCIPLES OF CONSERVATION BIOLOGY (NRM 2303)**

## **COURSE SYLLABUS, SPRING 2016**

**INSTRUCTOR:** Saskia van Hecke

**CONTACT INFORMATION:** Phone 432-837-8201, email [saskia.van-hecke@sulross.edu](mailto:saskia.van-hecke@sulross.edu). I prefer to correspond by phone or in person rather than by email. I check and respond to email once in the morning and once in the afternoon on weekdays, so if you want an immediate response use the phone. I do not check email on weekends.

**CLASS TIMES:** Tuesday & Thursdays 9:30-10:45 A.M.

**OFFICE HOURS:** Wednesday 9:00-11:00 A.M., Tuesday & Friday 2:00-4:00 P.M., Range Animal Science building, room 101 (Dean's office).

**READINGS:** The required textbook for the course is Essentials of Conservation Biology by Richard Primack (6th Edition, Sinauer and Associates).

### **COURSE OBJECTIVES:**

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

### **CLASS FORMAT:**

I will require you to read a chapter from the book at home prior to many classes. Most lecture periods will feature in-class assignments, discussions, or quizzes. There will be a

question and answer session at the end of most classes. We will also work through potential exam questions, discuss conservation issues around the world, and spend time in class to work on your semester-long conservation research project and fieldwork.

**GRADES:**

<b>Item</b>	<b>Points</b>
Quizzes/class discussion/homework	20%
Conservation research project and presentation	30%
Fieldwork and field report	10%
Midterm Exam	15%
Final Exam	25%
<b>Total</b>	<b>100%</b>

Scale: A= $\geq$ 90%, B=89-80%, C=79-70%, D=69-60%, F= $<$ 60%

**EXAMINATIONS:**

Two in-class examinations will be given during the semester. Exams will consist of a variety of questions, ranging from multiple-choice to essay. If you cannot attend an exam, see me before the test to arrange an alternative test time. Make-up exams will be given only under EXTREME circumstances with proof explaining your absence.

**CONSERVATION RESEARCH PROJECT:**

Throughout the semester, you will work with a small group to complete a conservation research project on an endangered species of your choice. The project is broken down into three assignments that relate to the information we cover in class. Each assignment will build on the previous ones and together they will add up to a research paper. You will present your findings to the rest of the class at the end of the semester. Guidelines for assignments and for the final presentation will be supplied during the semester.

**FIELDWORK**

There will be at least two days that we will spend doing fieldwork of some sort. During the week that we do fieldwork there will be no class at the regularly scheduled time/place – instead that time will be spent outside. To allow sufficient time for

fieldwork, you may be required to attend outside regularly scheduled class hours. You will be required to write a research report with introduction, methods, results, and discussion. More details will be given in class.

### **ATTENDANCE**

Attendance is crucial for the successful completion of this course, but is ultimately the responsibility of the student. Assignments and activities done in class make up 20 percent of your final grade and cannot be made up unless your absence from class is excused (bring a note from your doctor, coach, club advisor, etc. explaining your absence).

### **SUBMITTING WRITTEN ASSIGNMENTS**

Assignments that are completed in class (e.g. quizzes, essays) must be submitted at the end of the class (hard copy). Assignments that are completed outside of class (e.g. semester-long group project, field report) can be submitted by e-mail or as a hard copy.

Always include your first and last name, the course number or name, date submitted, and a document title on the front page of assignments.

All typed assignments should follow the following formatting requirements:

- Line spacing: Double spaced;
- Margins: 1" on all sides;
- Font: Times New Roman, size 12, black. You may choose different formatting for headings.
- Paper: White, no background colors or images.

### **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.

## **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 disability, please contact the ADA Coordinator for Program Accessibility. If you anticipate that you will need accommodations, it is important that you request them early in the semester. Contact information for ADA Coordinator for Program Accessibility:

Mary Schwartz, M.Ed., LPC  
Accessibility Services Coordinator  
Counseling & Accessibility Services  
mschwartz@sulross.edu  
432-837-8203  
Ferguson Hall, Rm #112  
P.O. Box C-122  
Alpine, TX 79832

## **ADDITIONAL OUTCOME OBJECTIVES**

Program Learning Outcomes for the B.S. in Natural Resource Management, required by the Southern Association of Colleges and Schools.

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.

## LECTURE SCHEDULE - NRM 2303, SPRING 2016

Date	Class topic(s)	Homework for next class
1/19	Welcome, Introduction	Read <b>Chapter 1</b> at home.  Bring information to Jan 21 class on 3 events, people, or legislation that shaped conservation in the US.
1/21	What is Conservation Biology?  History of wildlife & conservation management in the US.	
1/26	What is Biodiversity?	Read <b>Chapter 2</b> at home.
1/28	Where is Biodiversity found?	Read pages 53-57 of <b>Chapter 3</b> .
2/2	Writing Skills	
2/4	Writing Skills	Read pages 175-188 of <b>Chapter 9</b> .
2/9	Threats: Extinction	Prepare for debate on February 11.
2/11	Debate: de-extinction	Read pages 189-204 of <b>Chapter 9</b> .
2/16	Threats to Biodiversity: Habitat destruction & Climate change	Read pages 205-215 of <b>Chapter 9</b> .
2/18	How to do a literature search, tour of library. <b>Meet in Library on main campus.</b>  <b>Group research time</b> – Part 1: choose endangered species, begin to research habitat, distribution, life cycle, diet, and behavior.	
2/23	Threats to Biodiversity: Overexploitation, disease.	
2/25	Applied population biology.  Midterm exam prep, Q & A.	
3/1	<b>MIDTERM EXAM</b>	<b>Group research project Part 1 due by March 4.</b>
3/3	Brief presentation: how to write a field report. Prepare for field work.  Begin field report – write intro, methods.	

<b>Date</b>	<b>Class topic(s)</b>	<b>Homework for next class</b>
3/8	Field work	
3/10	Field work	
3/14- 3/18	<b>SPRING BREAK!!</b>	
3/22	Work on field report. Write up results, discussion.	
3/24	Small populations.	Read <b>Chapter 4</b> at home.  <b>Field report due March 29.</b>
3/29	<b>Group research time</b> – Part 2: Threats to your group’s selected species.	Read <b>Chapter 5</b> at home.
3/31	Value of Biodiversity.	
4/5	Conservation strategies.	Read <b>Chapters 15</b> at home.
4/7	Protected areas establish and design	Read <b>Chapter 17</b> at home.
4/12	Protected areas management.	<b>Group research project Part 2 due by April 15.</b>
4/14	Ecosystem management & conservation.	
4/19	<b>Group research time</b> – what conservation efforts are being made to protect/restore your species? Have they been successful? Why/why not?	
4/21	<b>Group research time</b> – work on conservation research project and/or presentation.	
4/26	Present conservation research project.	<b>Group research project Part 3 due by April 28.</b>
4/28	Present conservation research project.	
5/3	Exam prep, Q & A in class.	
5/5	Optional exam preparation session (I will be in class and the classroom will be available for studying, but attendance is not required)	
5/9 – 5/13	<b>EXAM 2</b>	