

NRM2303 – Principles of Conservation Biology Course Syllabus – Spring 2021

Instructor

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Appointments (face-to-face or virtual) can always be made via e-mail or text. For those needed to meet on main campus, we can do so via appointment.
I also have "Open Door Office Hours". Feel free to come in anytime you see me in my office.

Teaching Assistant

Name: Joshua Coward
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Office Hours: M-F 9:00-10:00 (Josh has "open door office hours" as well.)
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Course Description

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

What is Conservation Biology? *

Biological diversity throughout the world is being threatened by human activity: species are being driven to the edge of extinction; biological communities are being degraded, fragmented, and destroyed; and the genetic variation within species is being lost as populations are reduced in size and lost. Conservation biology is a multidisciplinary science that has developed in response to this biodiversity crisis. Conservation biology has three goals: (1) to investigate and describe the diversity of the living world; (2) to understand the effects of human activities on species, communities, and ecosystems; and (3) to develop practical interdisciplinary approaches to protecting and restoring biological diversity.

Conservation biology arose because none of the applied disciplines, such as forestry, fisheries and wildlife management, zoo and park management, and agriculture, were comprehensive enough individually to address the critical threats to biological diversity. In general, these applied disciplines have developed methods for managing a small range of species for the marketplace and recreation. Conservation biology complements these applied disciplines by providing a broader approach and by having the long-term preservation of biological diversity as its primary goal, with economic factors often secondary. The academic disciplines of population biology, ecology, taxonomy, landscape ecology, and genetics constitute the core of conservation biology, with increasing inputs from economics, law, philosophy, anthropology, and other related fields.

Since the 1980s, conservation biology has become one of the most vibrant subject areas within biology. Enormous interest has led to whole new fields of knowledge being developed. However, conservation biologists are not simply content with developing new knowledge. The field of conservation biology will only be judged a success if this knowledge is used in a practical way to protect and restore the world's fragile biological diversity.

*From <http://www.biologyreference.com/Ce-Co/Conservation.html> by Richard B. Primack

Objectives and Outline

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.

Student Learning Objectives for the B.S. in Natural Resource Management, required by the Southern Association of Colleges and Schools:

The Southern Association of Colleges and Schools requires, for the B.S. in Natural Resource Management, that 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.

Course Outline

1. Major Issues that Define Conservation Biology
 - a. What is Conservation Biology?
 - b. What is Biodiversity?
 - c. Where is the World's Biodiversity Found?
2. Threats to Biodiversity
 - a. Extinction
 - b. Habitat Destruction, Fragmentation, Degradation
 - c. Global Climate Change
 - d. Overexploitation, Invasive Species, Disease
3. Conservation at the Population and Species Levels
 - a. Applied Population Biology
 - b. Problems Specific to Small Populations
4. Practical Applications
 - a. Establishing Protected Areas
 - b. Managing Protected Areas
 - c. Conservation Outside Protected Areas
 - d. Agenda for the Future of Conservation Biology
 - e. Other topics as time allows

Logistics / Materials / Grading Information / Course Policies

Class Meeting Time/Place

Times: Monday, Wednesday, Friday 1:00 pm - 2:00 pm (lecture recording times; join if you can)

Place: Blackboard Collaborate Ultra (online)

Text and Supplies

1. *Essentials of Conservation Biology* by Richard Primack (6th Edition, Sinauer and Associates). (**Required**)

Course Grade

Quizzes	15%
Discussion Forum Contributions	25%
Conservation Research Project	20%
Midterm Exam	20%
Final Exam	20%

Grade Assignment

<60 = F, 60-69 = D, 70-79 = C, 80-89 =B, 90-100 = A.

Quizzes

The course and its material are organized by chapter. Each chapter has a reading assignment that explains the material. The assigned readings are essential; completing 100% of the assigned readings is expected. Each chapter will conclude with a timed online quiz over the readings.

Discussion Forum Contributions

Thoughtful participation in the online discussion forums is *critical* to the learning process in this class. I expect a high level of online discussion to enhance everyone's learning. Each student must contribute at least 3 posts per chapter (unless otherwise directed during the semester), as detailed next:

- One original post is required by 11:59 pm the day after we finish a chapter's lectures. This post will be your own original and individual answer to a question posed to the entire class at the end of each chapter's lecture. Although there is not a length requirement, you should target at least 250 words to ensure you are contributing sufficiently to the discussion and receive the maximum score.
- Two comments on others' posts (by other students or the instructor) are due by 11:59 pm on the third day after we finish a chapter's lecture. Although there is not a length requirement, you should target at least 100 words to ensure you are contributing sufficiently to the discussion and receive the maximum score. Note that you will not be able to see or comment on others' posts until after you submit your own original post (see prior bullet).
- All posts will be graded based upon their relevance, depth of knowledge, and unique contribution made to the discussion, using a rubric that will be made available in Week 1. Short posts saying things like "I thought the same thing" or "I never thought of that", but nothing more, will be ignored.
- Students are expected to have read all assigned reading for a given chapter and watched the associated lecture(s) BEFORE posting in the discussion forums. Posts that indicate you haven't read and/or watched the lecture(s) will lower your discussion grade significantly.
- Zeros will be earned for the entire discussion grade for any chapter if any single post is judged by the instructor to be unprofessional, discourteous, and/or uncivilized.
- All posts must be entered directly into Blackboard; not as file attachments.
- You must make these postings by the due dates. You will not receive credit for late postings.

Conservation Research Project / Presentation Grade

Throughout the semester, you will complete a conservation research project on an endangered species of your choice. The project is broken down into three parts, due periodically during the semester, that relate to the information we covered most recently in class. Each part will build on the previous ones and together they will be combined into a research paper due at the end of the semester. Guidelines for each part of the project will be supplied during the semester.

Midterm and Final Exams

Two online examinations will be given during the semester:

- Exams will consist of a variety of questions, including multiple-choice, fill-in-the-blank, short-answer, and essay.
- No make-up exams will be given for an unexcused absence. You must notify me of an excused absence from an exam **PRIOR** to the start day and time of the exam you will miss; i.e. arrangements for make-up exams must be made BEFORE the exam is given.
- Exams will be completed outside of class, online in Blackboard, **using a strict honor code**. The following statement must be e-mailed to your instructor *after* you submit *each* exam for you to earn a grade other than zero:

"I have neither given nor received any unauthorized aid on this exam."

Participation

- I expect a high level of engagement to enhance everyone's learning. This includes interacting with the instructor and other students, asking questions during class, posting in the Blackboard discussion forums, writing entries in Blackboard journals, attending office hours (in-person and/or online), completing outside of class assignments and readings, and being prepared to participate in class discussions.
- Online participation: Any time you attend class online (via Blackboard Collaborate Ultra), you are required to be properly dressed, avoid video distractions, and keep your microphone muted except to ask questions or request clarification. **Anyone causing distractions may be muted, have their video shut off, and/or removed from the session without warning, at the instructor's discretion.**

Due Dates/Times/Extensions

All graded work, including exams, are expected to be on-time. **No due dates for ANY graded work, including exams, will be extended without PRIOR e-mail arrangements** initiated by the student, and only for valid reasons.

Academic Integrity

Academic dishonesty hurts everyone and reduces the value of college degrees. Doing someone else's work, presenting the ideas and work of others as your own, submitting the same paper for multiple classes, and/or failing to cite your sources when you utilize the ideas of others, are all examples of academic dishonesty. 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: <https://www.sulross.edu/page/2454/student-handbook> (page 80). In addition, please note that plagiarism detection software will be used in this class for written assignments, as well as monitoring software for any online exams. **Any student shown to violate academic integrity will receive no credit (0) for work done and/or may be penalized in accordance with published University Rules.**

Communication

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

Attendance

- Students are expected to make every effort to attend class live (as it happens) either online OR in person (when available and if comfortable doing so). All lectures will be recorded and posted in Blackboard. If live class must be missed, the student is expected to watch the recorded lecture as soon as practical.
- Roll will be taken every lecture for the face-to-face students, attendance will be automatically recorded for those joining live lecture online, and viewing of recorded lectures will also be automatically recorded by Blackboard.
- It is policy of this class to **drop a student with a grade of ``F" if 9 hours or more of class are missed**. Any time class is missed, for any reason, it will be recorded as an absence. Any time class is missed, for any reason, it will be recorded as an absence, unless an absence can be shown to be due to a college-related event.
- Students are expected to arrive to class on time. If a student is perpetually late, they will be asked to not attend class unless they can arrive on time. If tardiness becomes a problem for the class as a whole, people who arrive late will not be permitted to enter the class. If this stricter policy becomes necessary, there will be an announcement made in class.

Electronics in the Classroom

The use of personal laptops, cell phones, iPads, and other electronic devices can create distractions for learning, both for yourself and others. However, such devices can also be great tools to aid learning. Therefore, using electronic devices for class purposes (e.g. taking notes, working out problems, searching the internet) is allowed in silent mode. If you choose to use electronic devices in class, do so in a professional manner that does not impede others' learning. **The use of internet-capable devices (e.g. smartphones) is not allowed for exams. Headphones will not be allowed in class for any reason.**

Resources and Assistance

SRSU Library Services

The Sul Ross Library 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. Appointments to access the building are required (see <https://sulross.libguides.com/covid19/building>). The library also offers curbside delivery of physical resources (see <https://sulross.libguides.com/covid19/curbside>). Off-campus access requires your LoboID and password. Check out materials using your photo ID. 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

Since the library can be visited by appointment only, there will be no drop-in tutoring, nor can face-to-face tutoring be done safely during COVID-19. So, all tutoring will be online. Tutoring will be available starting on August 31. Contact Anita Banegas (**432-837-8992**, abanegas@sulross.edu) or Mabel Garcia **432-837-8629**, mag15bf@sulross.edu) to get an e-mail invitation for either group or individual tutoring, or to request an appointment.

Blackboard's Support Desk

SR has moved its Blackboard site to the Texas State University System's (TSUS) Blackboard Environment. Sul Ross' Blackboard login page will take you straight into the new TSUS Blackboard environment from the Sul Ross website. It may look slightly different to you, and may want to tweak some of your settings that you had previously. If you have any technical issues with the new system or Blackboard itself, e.g. if you are having issues submitting a document, getting videos to play, or you are dealing with a technical error in the course, then the Blackboard Support Desk is ready to help you. The 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. As always, academic questions about course assignments, due dates, and general course questions should be directed to your instructor.

Americans With Disabilities Act

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. Students seeking accessibility / accommodations services must contact Rebecca Greathouse Wren, LPC-S, SRSU's Accessibility Services Coordinator at **432-837-8203** (please leave a message and someone will get back to you as soon as possible during working hours), or email rebecca.wren@sulross.edu. The office is located on the first floor of Ferguson Hall (Suite 112), and the mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas, 79832.

Tentative Course Schedule (Subject to Change)

Week	Dates	Topic(s)
1	01/11-01/15	Course Overview and Syllabus Chapter 1. What is Conservation Biology?
2	01/18-01/22	Chapter 1. What is Conservation Biology? Chapter 2. What is Biodiversity?
3	01/25-01/29	Chapter 2. What is Biodiversity? Chapter 3. Where is the World's Biodiversity Found?
4	02/01-02/05	Chapter 3. Where is the World's Biodiversity Found? Chapter 7. Extinction
5	02/08-02/12	Chapter 7. Extinction Chapter 8. Vulnerability to Extinction Chapter 9. Habitat Destruction, Fragmentation, Degradation, and Global Climate Change
6	02/15-02/19	Chapter 9. Habitat Destruction, Fragmentation, Degradation, and Global Climate Change
7	02/22-02/26	Chapter 10. Overexploitation, Invasive Species, and Disease
8	03/01-03/05	Chapter 4&5. Ecological Economics & Indirect Use Value
9	03/08-03/12	SPRING BREAK
10	03/15-03/19	Chapter 12. Applied Population Biology Special Topic: Capture-Mark-Recapture and the Lincoln-Petersen Method
11	03/22-03/26	Chapter 11. Problems of Small Populations Chapter 13. Establishing New Populations
12	03/29-04/02	Chapter 14. Ex-Situ Conservation Strategies Chapter 15. Establishing Protected Areas
13	04/05-04/09	Chapter 15. Establishing Protected Areas
14	04/12-04/16	Chapter 16. Designing Networks of Protected Areas Chapter 18. Conservation Outside Protected Areas
15	04/19-04/23	Chapter 19: Restoration Ecology Chapter 6: Ethical Values
16	04/26-04/28	Chapter 22: An Agenda for the Future

Holidays

Mon	01/18	MLK holiday (no classes)
Mon-Fri	03/08-12	Spring Break (no classes)
Fri	04/02	Good Friday Holiday (no classes)

Exam Schedule

Midterm Exam Due (Blue Content)	Friday, March 05 (tentative)
Final Exam Due (Green Content)	Friday, April 30 (per SRSU schedule)

COVID-19 Safety Pledge - One University/One Community

As a partner in each campus community the faculty, staff, and students agree to the following statements in relation to the COVID-19 virus:

- I will wear a face covering, wash my hands, and disinfect my workspaces to protect others from the potential spread of this virus.
- I promise to follow social distancing guidelines as a way to mitigate the risk of transmission to others both professionally and personally.
- I will monitor my health and report any potential COVID-19 illness and agree to follow the guidelines set forth in the *Sul Ross State University Return to Campus Plan* or as described by Sul Ross State University to protect the public health.
- I understand that my actions may impact the larger community and could affect my academic progress or professional attainment at Sul Ross State University.

Additionally:

- Between classes, incoming and outgoing faculty members and students are expected to sanitize their desks, chairs or other areas they have occupied. Cleaning by both outgoing and incoming individuals minimize the risk of any contagion.
- Students and faculty entering buildings will be asked to respect the flow of foot traffic and to enter and exit buildings and classrooms through designated areas.
- Only two people may ride an elevator at one time. Students are encouraged to take the stairs when possible.
- Students and faculty are **REQUIRED TO WEAR FACE MASKS** while in enclosed spaces for classes and lab.

Furthermore, University employees and students are expected to help monitor COVID-19 as a way to prevent the spread of the virus and protect each other. To accomplish the required data collection, the University asks its community members to take three actions:

1. Keep keep track of their health and track any potential symptoms;
2. Test for the virus when you have potential symptoms or have been in contact with someone who has symptoms; and
3. Trace your steps and keep accurate track of your interactions with others so that contact tracing can, if necessary, be done quickly and efficiently.

If you have been exposed to COVID-19 or think you might have been exposed, then you must quarantine for 14 days before you return to class.

If a student attends class without a face mask, the instructor will ask the student to wear one, and if necessary, leave to get one, advising the student where some disposable masks might be available in the building. If the student refuses to wear a mask, they will be required to leave the lecture and join online. If an unmasked student refuses to leave, the instructor will call UDPS to have the student removed and/or cancel the class to be resumed later online or recorded without students. The violating student will be reported to the appropriate department chair(s) and the Office of Student Life for potential disciplinary action, as described below.

Failing to meet these expectations may be subject to corrective action under University disciplinary policies.

Changes or recommendations to the guidelines based on evolving guidance from federal, state, or local agencies will be communicated to the university community.