NATURAL RESOURCES 458 BIODIVERSITY AND CONSERVATION BIOLOGY FALL SEMESTER 2021, 3 CREDITS

Contact Info

Instructor: Dr. Marie Perkins (she/her)

Office Hours: Wed. 10:00 - 11:00 or by appointment

Zoom - Join URL: https://uwsp.zoom.us/j/5266245041

In person: TNR 344

Email: mperkins@uwsp.edu

Lecture: Hybrid: Online and TNR 359 Wednesday and Friday 9:00 - 9:50

<u>Course Goal:</u> The field of conservation biology seeks to preserve biological diversity and ecosystem function. Conservation biology is an interdisciplinary science that draws on the disciplines of ecology, genetics, biology, geology, chemistry, economics, sociology, and anthropology to seek solutions to the multitude of threats to biodiversity. This course will introduce students to the fundamental principles of conservation biology. Broadly, this will include topics related to sustainable development, population genetics, landscape ecology, ecosystem ecology, policy, and environmental economics. Ultimately, students in this course will be expected to develop critical thinking skills to investigate challenges and concerns associated with conservation biology as well as synthesize basic biological and ecological information.

Learning Objectives:

- 1. Explain the nature and extent of threats to local and global biodiversity
- 2. Summarize the current practices of conservation biology
- 3. Critique concepts in conservation biology as they relate to local, national, and global issues
- 4. Analyze the challenges associated with conservation biology
- 5. Interpret peer-reviewed literature on biodiversity and conservation biology

Required Textbook:

An Introduction to Conservation Biology, 3nd Edition. Anna A. Sher. Oxford University Press, New York, New York.

Course Structure: This is a hybrid course, you should expect ~50 minutes of recorded lecture material each week. There will be 2, 50-minute in-person class meetings. In-person class periods will be a combination of formal lectures, activities, and class and small group discussions. You will be expected to interact with the online course content prior to the associated in-class meeting period. Additionally, readings from the text will be required (see below) and will aid in class discussions.

<u>Canvas:</u> Course materials including lecture recordings, copies of lecture slides, assigned and recommended readings, and other related materials will be posted to Canvas. All assignments will be submitted in Canvas. I will communicate information related to the course using Canvas announcements.

Exams: Three exams will be given during the semester; each exam will be worth 100 points. These exams will focus on new material, however, many of the concepts in this class build on each other. Understanding of previous topics will be incorporated into the exams.

Required Readings: Each week you will be expected to read the textbook portions we will discuss during the class meetings. You will write down some notes from the readings and submit these to Canvas. Each of these will be worth 3 points. There will be 24 due throughout the semester and they will count towards 63 points of your grade (you will get 3 freebies but can increase your overall points by submitting all). You will get 3 points for turning them in and 0 points for not turning them in.

Lecture Recordings: There will be videos posted on Canvas for you to watch before each Wed. and Fri. in-person class. There will be quizzes embedded in the videos worth a total of 2 pts. There will be 23 throughout the semester and they will count towards 42 points of your grade (you will get 2 freebies but can increase your overall points by submitting all).

<u>In-class Activities:</u> During some class sessions, you will be asked to submit an assignment or reflection at the end of class related to the in-class discussion or activity. These will be worth 3-5 pts each for a total of 50 pts throughout the semester.

<u>Assignments:</u> You will have a variety of assignments to complete over the course of the semester aimed to improve your critical thinking and communication skills. Details for all assignments will be posted in Canvas.

Grading:

| Evaluation: | Grades: | | |
|---------------------|---------------|---------------|----|
| | Points | 93% and above | A |
| Exam 1: | 100 | 90-92% | Α- |
| Exam 2: | 100 | 87-89% | B+ |
| Final Exam: | 100 | 83-86% | В |
| Required Readings: | 63 | 80-82% | B- |
| Lecture Recordings: | 42 | 77-79% | C+ |
| In-class Activities | 50 | 73-76% | C |
| Assignments: | 100 | 70-72% | C- |
| TOTAL | | 67-69% | D+ |
| TOTAL | 555 | 64-66% | D |
| | | 62 and below | F |

COVID-19 Guidance and Other Precautions:

We will follow university guidance (which includes CDC guidance) regarding COVID-19, monkeypox, and other health-related issues. Please reference the <u>UWSP's website related to COVID</u>. The <u>CDC website</u> provides guidance on isolation and precautions related to COVID. As needed, we will announce policy changes that affect you in this class. It is expected that everyone will respect the needs and preferences of classmates and instructors.

Other Guidance:

- If you are not feeling well or test positive for COVID-19, **do not come to class**; email your instructor and contact Student Health Service (715-346-4646).
- As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus.
- Maintain a minimum of 6 feet of physical distance from others whenever possible.
- Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face.
- Please maintain these same healthy practices outside the classroom.

Getting Help Please do not be shy about asking for help. You are welcome to email me to schedule a time to meet with me in person or via Zoom. If you are having any trouble understanding something in class, do not hesitate to get in touch, as those problems will likely only get worse as the material becomes more complex and builds on itself. You can find important dates, including drop/add dates, in the semester academic calendar linked here https://www3.uwsp.edu/regrec/Pages/calendars.aspx. Additionally, the CNR Student Success Center (TNR 122) has professional advisers and peer mentors as an additional resource for students https://www3.uwsp.edu/cnr/ssc/.

Academic Dishonesty and Late Work Policy: Trust between students and the instructor is of paramount importance in academic settings. Academic dishonesty will not be tolerated in the classroom (e.g., cheating on exams) or in research efforts (e.g., plagiarism). Academic dishonesty will be punished to the fullest extent that University policy permits. Late work will lose 10% for every 24 hours after the designated deadline.

<u>Inclusivity Statement:</u> It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs are addressed both in and out of class, and that the diversity all students bring to this class is viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups.

If you have experienced a bias incident (an act of conduct, speech, or expression to which a bias motive is evident as a contributing factor regardless of whether the act is criminal) at UWSP, you have the right to report it (https://www.uwsp.edu/dos/Pages/Bias-Hate-Incident.aspx). You may also contact the Dean of Students office directly at dos@uwsp.edu.

<u>Equal Access for Students with Disabilities:</u> UW-Stevens Point will modify academic program requirements as necessary to ensure that they do not discriminate against qualified applicants or students with disabilities. The modifications should not affect the substance of educational programs or compromise academic standards; nor should they intrude upon academic freedom. Examinations or other procedures used for evaluating students' academic achievements may be adapted. The results of such evaluation must demonstrate the student's achievement in the academic activity, rather than describe his/her disability.

If modifications are required due to a disability, please inform the instructor and contact the <u>Disability and Assistive Technology Center</u> to complete an Accommodations Request form. Phone: 346-3365 or Room 609 Albertson Hall.

Online Materials and Class Recordings:

Lecture materials and recordings for NRES 458 are protected intellectual property at UW-Stevens Point. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or share lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

Tentative Lecture Schedule:

| Date | | Lecture Topic | Reading in Textbook | |
|---------------|----|--|---------------------|--|
| September | | Introduction and Syllabus | | |
| Wed. | 7 | · | | |
| Fri. | 9 | Defining Conservation Biology | 3-21 | |
| Wed. | 14 | What is Biodiversity I | 25-37 | |
| Fri. | 16 | What is Biodiversity II | 37-54 | |
| Wed. | 21 | The Value of Biodiversity I | 57-73 | |
| Fri. | 23 | The Value of Biodiversity II | 74-93 | |
| Wed. | 28 | Threats to Biodiversity I | 97-114 | |
| Fri. | 30 | Threats to Biodiversity II | 114-128 | |
| October | 5 | EXAM 1 | | |
| Wed. | | | | |
| Fri. | 7 | Climate Change I | 131-152 | |
| Wed. | 12 | Climate Change II | 152-167 | |
| Fri. | 14 | Extinction Risk I | 171-191 | |
| Wed. | 19 | Extinction Risk II | 191-206 | |
| Fri. | 21 | Conserving Populations and Species I | 209-234 | |
| Wed. | 26 | Conserving Populations and Species II | 234-248 | |
| Fri. | 28 | Establishing New Populations I | 251-263 | |
| November | 2 | Establishing New Populations II | 263-280 | |
| Wed. | | | | |
| Fri. | 4 | EXAM 2 | | |
| Wed. | 9 | Protected Areas I | 283-306 | |
| Fri. | 11 | Protected Areas II | 306-319 | |
| Wed. | 16 | Conservation Outside Protected Areas I | 323-337 | |
| Fri. | 18 | Conservation Outside Protected Areas II | 337-353 | |
| Wed. | 23 | Restoration Ecology I | 357-366 | |
| Fri. | 25 | No class - Thanksgiving | | |
| Wed. | 30 | Restoration Ecology II | 366-382 | |
| December | 2 | Challenges of Sustainable Development I | 385-396 | |
| Fri. | | | | |
| Wed. | 7 | Challenges of Sustainable Development II | 396-414 | |
| Fri. | 9 | An Agenda for the Future | 418-433 | |
| Wed. | 14 | TBA | | |
| Final Exam: V | | | | |