FW 455: PRINCIPLES OF CONSERVATION BIOLOGY

FALL 2023 TR 9:30-10:45 Wagar 107

Instructor: Dr. Kevin Crooks
Professor
Department of Fish, Wildlife, and Conservation Biology
115 Wagar
Office Hours: By appointment
Phone: 970-491-7936
e-mail: kevin.crooks@colostate.edu

Course Description:

This course focuses on the scientific foundations of conservation. We will address major threats to biodiversity and discuss approaches for overcoming these threats in ways that balance the needs of people and nature. Students will gain a greater understanding of the major principles and contemporary issues in Conservation Biology, focused on wildlife conservation. We will also practicing techniques for communicating conservation science to diverse audiences.

The course is intended for upper-division undergraduate students in the Department of Fish, Wildlife, and Conservation Biology. This interactive course emphasizes student involvement and participation. Although there will be regular lectures by the instructors and guest speakers, the focus of the course will be on student-led discussions, writing assignments, debates and presentations.

Assigned Readings:

Course materials include articles from the primary scientific literature and occasionally from other media sources. All course materials will be posted on the class Canvas page.

Discussions:

We will have discussions focused on papers from the scientific literature during ~8 class periods. Typically, a team of 2-3 students will be assigned to lead each discussion section. The lead students are expected to submit 3-4 discussion questions on the reading no later than the class period before the discussion; these questions should be e-mailed directly to the instructor, who will then post on Canvas in advance of the discussion period. Students not leading discussion must submit brief, typed answers to each discussion question (uploaded online via Canvas before the discussion period) and be prepared to discuss and critique the paper in class.

At the start of the discussion section, the lead students are expected to provide a thorough yet concise overview of the paper via a 10 minute Powerpoint/Google Slides presentation. In the summary, you should: 1) review the major points of the paper, 2) raise topics of interest (i.e., highlight novel results and conclusions), 3) raise any questions or objections you have with the methods, results, and/or conclusions, 4) tie the material covered into related literature and your own experiences (e.g., does it reinforce or contradict results or conclusions from other publications?), and 5) cite parts of the paper that you don't understand and request clarification for the group discussion. Following the summary, the lead students should then be prepared to actively generate and facilitate discussion for the rest of the online discussion section. You will be assigned a grade for leading the discussion. A grading rubric will be posted on Canvas and reviewed in class at the beginning of the semester.

Debates:

There will also be two debates during the semester that focus on important emerging issues in conservation biology (wolf restoration to Colorado; role of zoos in conservation). Details on the topic and structure of the debates will be provided in class.

Op-Ed Article and Elevator Talk:

Each student will be required to write a brief (300-500 word) "Op-ed" on a current conservation biology topic or issue of their choice. The article should be written for an appropriate newspaper (may be local, regional, national or international, depending on the scope of your issue). For this assignment, we will likely use AI tools (ChatGPT) to explore how they can be used to generate a first draft of the Op-ed. We will then workshop the initial AI-generated articles in class and your classmates will provide suggestions for improvement before submission online to Canvas. You will also give a 60-90 second "elevator talk" on your topic online towards the end of the semester. More details on this assignment will follow.

Term Paper & Oral Presentation:

Each student will use the primary scientific literature to research and prepare a literature review on a conservation biology topic. Your paper should consolidate what is known about your topic, highlight information gaps, and set priorities for future research and practice. More detailed information on this assignment will be provided early in the semester, including examples of review papers.

Each student will also present their paper topic before the class online in the style of a speed talk at a scientific conference (5 minute Powerpoint/Google Slide talk, 2-3 minutes of questions from the audience).

Final:

The final exam will consist of essay questions designed to encourage students to review and synthesize course material. Exam questions will be taken from lectures, discussions, debates, presentations, and assigned readings. Make-up or early exams will only be given if you speak with the instructor several weeks prior to the exam with a valid reason.

Grading:

Tentative point allocation for evaluation of students:

Term Paper		
Topic	5 points	3%
Outline	5 points	3%
1st Paragraph	5 points	3%
Final Draft	40 points	21%
Oral Presentation (speed talk)	20 points	10%
Discussion Lead	20 points	10%
Debates	20 points	10%
Discussion/Debate Questions	16 points	8%
Op-ed	20 points	10%
Elevator talk	20 points	10%
Final	20 points	10%
TOTAL	191 points	

Cutoffs for grades will be based on the following percentages: **A**: 94-100; **A-**: 90-93; **B+**: 88-89; **B**: 84-87; **B-**; 80-83; **C+**: 78-79; **C**: 70-77; **D**: 60-69; **F**: ≤ 59.

Late Assignment Policy: Note that all assignments should be submitted online in Canvas at the start of the class period on the due date and will be penalized 50% if received in the afternoon or evening of the due date. No assignments will be accepted after the due date, unless I accept a valid reason in advance. All assignments should be typed (not hand-written).

Academic Integrity & CSU Honor Pledge: This course will adhere to the CSU Academic Integrity/Misconduct Policy as found in the General Catalog and the Student Conduct Code. Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, I will ask that you affirm the CSU Honor Pledge as part of completing your work in this course.

A Note on AI: Generally speaking, you are not authorized to use artificial intelligence engines, software, or artwork generating programs (or similar) to produce work for this class EXCEPT on assignments that I have identified and for which you will have received significant guidance on appropriate use of such technologies. I will provide more information about the specific assignment when the time is appropriate in the course. You may not, however, construe this limited use as permission to use these technologies in any other facet of this course. Any work written, developed, created, or inspired by AI is considered plagiarism unless the AI platform and associated prompts are fully cited in the assignment.

Universal Design for Learning/Accommodation of Needs: I am committed to the principle of universal learning. This means that our classroom, our virtual spaces, our practices, and our interactions be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning.
If you are a student who will need accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying memo from The Student Disability Center may be required before any accommodation is provided. The CSU Syllabus Resources and Policies Page provides policies relevant to your courses and resources to help with various challenges you may encounter.