FW 455: PRINCIPLES OF CONSERVATION BIOLOGY

FALL 2016 TR 10-11:15 107 Wagar

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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, while practicing techniques for communicating conservation science to diverse audiences.

The course is intended for upper-division undergraduate students. 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 in-class discussions, writing assignments, debates and presentations.

Assigned Readings:

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

Discussions:

During many class periods we will have an in-class discussion focused on papers from the scientific literature. Typically, a team of 3 students will be assigned to lead each discussion section. The lead students are expected to submit 3-5 discussion questions on the reading for posting on RamCT no later than the class period before the discussion. Students not leading discussion must come to each discussion section with brief, typed answers to these discussion questions and be prepared to discuss and critique the paper. 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 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 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. 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). We will workshop the articles in class and your classmates will provide suggestions for improvement before submission to the instructors and (optional) submission to the newspaper. You will also give a 60-90 second "elevator talk" on your topic in class towards the end of the semester. More details on this assignment will follow.

Term Paper & Oral Presentation:

Each student will use the primary 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 in the style of a speed talk at a scientific conference (5 minute powerpoint talk, 2-3 minutes of questions from the audience).

Final:

The final exam will be a take-home exam consisting of short answer and essay questions and will be 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 us several weeks prior to the exam with a valid reason.

Grading:

Tentative point allocation for evaluation of students (all late assignments will incur a 10% drop in grade per day):

Term Paper		
Topic	5 points	2%
Outline	5 points	2%
1st Paragraph	5 points	2%
Abstract	5 points	2%
Final Draft	50 points	20%
Oral Presentation (speed talk)	20 points	8%
Discussion Lead	20 points	8%
Debates	20 points	8%
Discussion/Debate Questions	14 points	6%
Op-ed	20 points	8%
Elevator talk	20 points	8%
Participation/Attendance	20 points	8%
Final	50 points	20%
TOTAL	254 points	

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