BIOL 370 / ES 320 – Winter 2018
Conservation Biology

Lectures: M and Th 10:00 – 11:20
Location: ELL 167
Pre-requisites: BIOL 186 or 190A; 215 & 230; STAT 255 or 260

Instructor: Dr. Erin O'Brien
Email: erinobrien@uvic.ca
Office hours: M/Th 12:00 – 1:30 in CUN 217 or by appointment

Course Background and Overview

We live on a human-dominated planet and face major environmental challenges. Conservation Biology is an applied science that focuses on how to protect, manage, and restore natural systems in the face of these challenges, while balancing the needs of people and nature. The issues conservation biology centers on – biodiversity loss and extinction, habitat degradation and loss, exploitation, invasive species, climate change – are big, complex, and challenging. They also are critically important for the future of humanity. Solving these problems requires applying the principles and tools of ecology (including population biology, community ecology, and biogeography), population genetics, economics, political science and other natural and social sciences. Like medical science, conservation biology is a value-laden discipline directed by a particular worldview. It is, nonetheless, a science – and to be conducted and scrutinized with clear eyes and hard numbers.

Our course will focus on relating ecological theory to conservation problems, using case studies highlighting current conservation issues to ground this theory. The course is divided into three themes: 1) The Foundations of Conservation Biology, 2) Scientific Approaches to Conservation Biology, and 3) Practical Applications, in which we will integrate and apply the knowledge gained in the first two sections to real-world conservation problems.

Course Learning Outcomes

By the end of this course you should be able:

- To understand, analyze and communicate the historical context, scientific basis, and goals of conservation, as well as the fundamental ecological concepts and tools of conservation biology;
- To understand and communicate the diversity of perspectives on conservation issues, the tradeoffs involved in conservation decisions, as well as your own philosophy and perspective on conservation issues;
- To understand, analyze and interpret ecological models, graphs, and scientific results pertaining to conservation biology;
- To critically evaluate the scientific and lay literature related to conservation biology, and to place individual studies within the broader context of the discipline;
- To demonstrate improvement in effective writing and analytical problem-solving skills.

Course Materials & Communication

Required Text: Primack,R.B. 2014. **Essentials of Conservation Biology, 6th Edition.** Sinauer Associates, Inc.

Required Readings: We will also read a variety of articles, including ones from the primary and secondary literature, as well as the media.

BIOL370/ES 320 CourseSpaces Website: I will post all course announcements, readings, and assignments on our course CourseSpaces website. I will also post lecture slides before lectures. Please be aware that these are *overviews*, not detailed notes, and are provided to help you organize and supplement your lecture notes. It is therefore **your responsibility to check our course website regularly for updates.** See: http://elearning.uvic.ca if you have questions about how to use CourseSpaces.

Email: If you have any questions or concerns with the course or your assignments, please feel free to meet me during office hours or by appointment, or contact me via email using your UVic email. Emails from other accounts (e.g. gmail) may be treated as spam and may not reach me. Note that I am sharing an office, so am limited in other times / days that I can meet outside of scheduled office hours; however, I will try to accommodate if you are unable to meet me during my scheduled office hours. I will do my best to respond to emails in a timely fashion, but please understand that delays may occur. Therefore, be prepared to wait up to 48 hours for a response during the week, and do not wait to email with queries about assignments at the last minute! Email will only be checked sporadically on weekends, and thus will not typically be answered until Monday.

Course Evaluation

Learning outcomes will be assessed based on the following:

Assignments:

1: Short essay: Media critique	15%
2: Essay: Conservation Biology Literature Critique	25%

Exams:

Midterm (Feb 8)	25%
Final Exam	35%

Overview of Evaluation Components

Assignments:

1. *Media Critique:* Issues in conservation biology are frequently covered in the popular media. For this short essay (max. 750 words), you will select a scientific paper that has received media coverage recently, and then write an analysis of the degree to which a particular popular article presents an accurate and fair representation of the science. **This paper is due by 10:00 am on Monday 26th Feb., submitted both on our CourseSpaces course website and via a hard copy to me at the start of class.**

2. *Conservation Literature Critique:* This essay will consist of a succinct (max. 3 pages) critical review of a recent peer-reviewed research article within the field of conservation biology. You will be given a choice of 5 papers and must sign up for one on

CourseSpaces (maximum 25 students per paper, with availability on a first-come first-serve basis). **This essay is due by 10:00 am on Monday March 26th, submitted both on our CourseSpaces website and via a hard copy to me at the start of class.** *Full details and instructions for each of the assignments will be posted on CourseSpaces. Assignments that are handed in late will be penalized 15% per day.

Midterm and Final Exams
The midterm and final exams will consist of multiple-choice, short answer, and longer written questions. The midterm will be based upon all material covered up to and including Feb 5. The final exam will be based on the full range of materials in this course, including lectures, assigned readings, and ideas shared by guest speakers, but will be weighted approximately 60% on material covered since the midterm. You are required to write both exams; the goal is to ensure that you have met the course learning outcomes. The Final Exam will be held in the official examination period (final exams this term for the Faculty of Science extend from April 9th to 24); the exact date is still to be scheduled.

Grading Scale: Final grades will be assigned on the basis of the following UVic scale:
A+ 90-100% B+ 77-79% C+ 65-69%
A 85-89% B 73-76% C 60-64%
A- 80-84% B- 70-72% D 50-59%
Failure (F) is a grade less than 50%. No supplemental exam will be given in this course.

UVic Policies and Procedures

Evaluation Policies: UVic accepts three types of excuses for missed exams or late assignments: illness, emotional trauma, or UVic-sponsored sporting activities. Requests for academic concession must be accompanied by valid written documentation from a medical doctor, UVic Counseling services, or a member of the UVic coaching staff. If you must miss the Final Exam for one of these reasons, you must notify me as soon as possible with valid documentation. Note that the Final Exam cannot be written early under any circumstances. However, it can be deferred if you are excused for one of the above reasons. When you are able to do so, you must request a Deferred Final Exam at Records Services on a Request for Academic Concession form.

Academic Integrity: I expect that all work you produce for this course will be your own, and I have zero tolerance for plagiarism in any form. Any words or ideas that are not your own MUST be acknowledged. Plagiarism includes "recycling" work from other classes, and it includes copying from online sources. It is your responsibility to familiarize yourself with UVic's Academic Integrity Policy: http://web.uvic.ca/calendar2011/FACS/UnIn/UARe/PoAcI.html and the library's website on plagiarism: http://library.uvic.ca/site/lib/instruction/cite/plagiarism.html for the university policy on academic integrity and useful information on avoiding plagiarism. Any form of academic dishonesty will result in an automatic 'F' for that assignment or test and possibly the entire course for all individuals involved.

Course Registration: It is your responsibility to attend to ADD/DROP dates published in the Calendar and posted on the Undergraduate Records website. You must not assume you will be dropped automatically from a course simply because you do not attend class. It is your responsibility to check your records and registration status, and to read the appropriate section of the current UVic Academic Calendar regarding your rights and obligations.

Accessibility: Students with diverse learning styles and needs are welcome in this course. If you have a disability/health consideration that may require accommodation to ensure that you succeed in this course, please talk to me (or staff at the UVic Resource Centre for Students with a Disability) as soon as possible. The RCSD staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations http://rcsd.uvic.ca/. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Positivity and Safety: UVic is committed to promoting, providing and protecting a supportive and safe learning and working environment for all its members.

A detailed course lecture schedule and required readings will be posted on our CourseSpaces website; you are responsible for checking it regularly.