

Welcome to BIOL 370 / ES 320 – Spring 2021

Conservation Biology

Instructor: Dr. Kurt Trzcinski

Email: trzcinskikurt@uvic.ca

Office hours: M/F 1:00 PM–2:00 PM; must sign up for a 10-minute time slot.

The best way to contact me is by email. Please put “Biology 370” in the subject line.

Lectures: M and Th 10:00 AM to 11:20 AM

Location: Zoom ;-) see link on Brightspace

TAs: Mackenzie Woods, mbwoods@uvic.ca

Maya Frederickson, frederickson@uvic.ca

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 nature 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 has three themes: 1) the rationale and foundations of conservation biology, 2) science to inform conservation strategy, and 3) conservation challenges and solutions, in which we will integrate and apply the knowledge gained from 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;
- Understand and communicate the diversity of perspectives on conservation issues, the trade-offs involved in conservation decisions, as well as your own philosophy and perspective on conservation issues;
- Understand, analyze and interpret ecological models, graphs, and scientific results pertaining to conservation biology;
- Critically evaluate the scientific and lay literature related to conservation biology, and to place individual studies within the broader context of the discipline;
- Develop questions, identify sources, and communicate findings in conservation biology.

Instructor Expectations & Student Responsibilities

This course will only fulfill the learning outcomes outlined above if you commit:

1. **To reading the assigned materials prior to class.** The assigned readings will provide us with the common ground for lectures and discussions. Therefore, you will have to have read, comprehended, and absorbed the assigned readings to really get the most out of this class. A general rule of thumb is to plan to spend at least 3–5 hours a week reading and reviewing lecture notes. All readings will be assigned and posted on Brightspace at least three days prior to the lecture in which they will be discussed.
2. **To attending class, and being prepared for and engaged in class.** Both you (the student) and I (the instructor) have a responsibility to come to class (on Zoom), to be on time, to be prepared to discuss the subject area, and to create a positive, constructive and respectful learning environment for others in the class. This includes turning cell phones off, not using electronic devices for activities unrelated to the class, and not leaving lecture early. This course will include lectures, as well as individual, and small group activities, and discussions of assigned readings, all of which will be most successful if we all meet these responsibilities. You should also take notes throughout class, and later use the lecture overview slides to supplement your notes. This is a synchronous class, and attendance is part of your participation grade. Lectures will be recorded and posted on Brightspace after the lecture. In order for your attendance to be recorded in Zoom, you must log into Zoom with your UVic account (open Zoom -> log in via SSO -> UVic login -> then open Zoom lecture link)
3. **To being an active participant in your learning.** Learning requires effort on both your and my part. For you to succeed in this course, you must apply yourself to the best of your ability: think logically and critically, challenge yourself, and try to synthesize seemingly disparate concepts and facts. Finally, consult with me when additional help is required. I am here to facilitate your learning.

Course Materials & Communication

Suggested Text: Primack, R. B. (2014). *Essentials of Conservation Biology* (6th Ed). Sunderland: Sinauer Associates.

Suggested Text: Kareiva, P. M. & M. Marvier. (2011). *Conservation Science* (2nd Ed). Roberts and Company Publishers.

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

BIOL370/ES 320 Brightspace Website: I will post all course announcements, readings, assignments, lecture recordings, and the weekly lecture schedule on our course Brightspace website. I will also post lecture slides. 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 Brightspace.

Course Conduct: I prefer that your camera be on and your microphone off, so we can connect better and be less anonymous, however, I understand that not everyone likes this. So, if you prefer to have your camera off, please put a picture of yourself up. Talking during class, texting, etc., is disrespectful to the other students even if they can't see you. Please give the class your full attention and refrain from such activities.

Course Evaluation

Learning outcomes will be assessed based upon the following:

Assignments and Quizzes:

1. Popular Science Article: Conservation issue 10%
2. Group project: Review project proposal 6%
3. Quiz I 12%
4. Quiz II 12%
5. Quiz III 12%
6. Group project: Presentation 15%
7. Final project report 20%
8. Participation 13%

Popular Science Article: Conservation issue 10%

You will write a popular science article (3-4 pages, double spaced) about a conservation issue. Include a minimum of 3 references (open to many types – just make them legit). Pick one of the topics below. Your group project cannot be on the same topic. Examples of high-quality popular science writing can be found in: Scientific American, New Scientist, and Hakai Magazine.

Conservation Issues

- a case for ending the herring fishery
- a case for and against culling (killing) to save wildlife species
- an example of inclusion and exclusion of indigenous peoples in conservation

Group project: Review project proposal 6%

You form groups of 3 people (not 4, I will allow one group of 2). As a group you will pick an issue in Conservation Biology (different from the short essay) and write a project proposal (3 pages, double spaced). The first two pages should outline the problem or controversy and the current situation. In the last page, you will describe how you will develop your project into a full report, and what the division of labour will be among team members. Include a minimum of 3 references.

Group project: Presentation 15%

You will record a 10-minute presentation of your review of an issue in conservation biology. Each group member must participate in the creation of the presentation and speak and explain things during the presentation. You will also be responsible for watching a minimum of 7 presentations, and ask questions on four presentations as part of your participation grade.

Group project: Final report 20%

You will write a review paper (5 pages, double spaced) on a conservation biology issue for your final report. The project will be approved in your proposal and will be on the same topic as your presentation, but the report will focus on written communication and the incorporation of the literature. You should include 5 to 7 references from the primary literature (peer-reviewed journals). References do not count against your page count. You will lose 10% of your grade for every page over 5 pages.

Quizzes: 36%

You will have three quizzes on the lecture and reading material worth 13% each. Quizzes will be a combination of multiple choice, fill-in-the-blank, and short answer.

Participation: 13%

There is tremendous potential to learn from each other in this class. Your participation in the class enriches everyone's experience and creates a better learning experience for all. This ranges from asking questions in class, participating in break-out groups, to asking insightful questions on a

classmate's presentation, and grading your fellow student's work. You are expected to provide written feedback on three Popular Science papers, three Project Proposals and three Group Presentations.

*Full details and instructions for each assignment will be posted on Brightspace. Assignments that are handed in late will be penalized 10% per day.

UVic Policies and Procedures

Policy on missing an exam: If you miss (or know beforehand that you will be missing) an exam because of illness, accident, family affliction, or commitments as an UVic athlete, you are required to contact the instructor in a timely manner. No other excuses other than the above are allowed. You are required to provide supporting documentation i.e. from a medical doctor, UVic counseling services, or a member of the UVic coaching staff

Important Information

Accessibility

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the Centre for Accessible Learning (CAL) as soon as possible. The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations <https://www.uvic.ca/services/cal/> . The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Diversity

The University of Victoria is committed to fostering inclusive practices in and out of the classroom. As your instructor, I am also highly committed to inclusionary principles that not only tolerate differences in race/ethnicity, age, gender, sexuality, socio-economic status, first language, country of origin, ability, etc. but that welcome these differences as enriching to all members of this course and the wider community. Your diverse positions, identities and experiences will inform much-needed diversity in class discussions.

Academic Integrity

Academic integrity is intellectual honesty and responsibility for academic work that you submit individual or group work. It involves commitment to the values of honesty, trust, and responsibility. It is expected that students will respect these ethical values in all activities related to learning, teaching, research, and service. Therefore, plagiarism and other acts against academic integrity are serious academic offences. UVic's policy on Academic Integrity is available here: <https://www.uvic.ca/current-students/home/academics/academic-integrity/index.php>

The responsibility of the institution: Instructors and academic units have the responsibility to ensure that standards of academic honesty are met. By doing so, the institution recognizes students for their hard work and assures them that other students do not have an unfair advantage through cheating on essays, exams, and projects.

The responsibility of the student: Plagiarism sometimes occurs due to a misunderstanding regarding the rules of academic integrity, but it is the responsibility of the student to know them. If you are unsure about the standards for citations or for referencing your sources, take advantage of the following resources: <https://www.uvic.ca/library/research/citation/plagiarism/index.php> or <https://www.uvic.ca/library/research/citation/index.php> . Depending on the severity of the case, penalties include a warning, a failing grade, a record on the student's transcript, or a suspension.

Course Evaluations

I value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). The survey provides vital feedback to me regarding the course and my teaching, as well as helping the School improve the overall program for students in the future. When it is time for you to complete the survey you will receive an email inviting you to do so. Please ensure that your current email address is listed in MyPage (<http://uvic.ca/mypage>). If you do not receive an email invitation, you can go directly to <http://ces.uvic.ca>. You will need to use your UVic netlink ID to access the survey, which can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more detailed information nearer the time but please keep your ideas for constructive feedback in mind throughout the course.

Grading Policy:

The following correlation of letter grade and numerical score will be used in the class. Final grades will be recorded as percentages.

| Grades | Percentage * | Description |
|---------------|--------------------------------|--|
| A+ A A- | 90 – 100 85 – 89 80 – 84 | An A+, A, or A- is earned by work which is technically superior, shows mastery of the subject matter, and in the case of an A+ offers original insight and/or goes beyond course expectations. Normally achieved by a minority of students. |
| B+ B B- | 77 – 79 73 – 76 70 – 72 | A B+, B, or B- is earned by work that indicates a good comprehension of the course material, a good command of the skills needed to work with the course material, and the student's full engagement with the course requirements and activities. A B+ represents a more complex understanding and/or application of the course material. Normally achieved by the largest number of students. |
| C+ C | 65 – 69 60 – 64 | A C+ or C is earned by work that indicates an adequate comprehension of the course material and the skills needed to work with the course material and that indicates the student has met the basic requirements for completing assigned work and/or participating in class activities. |
| D | 50 – 59 | A D is earned by work that indicates minimal command of the course materials and/or minimal participation in class activities that is worthy of course credit toward the degree. |
| F | 0 – 49 | F is earned by work, which after the completion of course requirements, is inadequate and unworthy of course credit towards the degree. |
| N | 0 – 49 | Did not write examination or complete course requirements by the end of term or session; no supplemental. |

<https://www.uvic.ca/calendar/undergrad/index.php#/policy/S1AAgoGuV?bc=true&bcCurrent=14%20-%20Grading&bcGroup=Undergraduate%20Academic%20Regulations&bcItemType=policies>

A finalized schedule and required readings for each lecture will be posted on our Brightspace website. You are responsible for checking it regularly.