RENR 364 / BIOL 230

PRINCIPLES OF MANAGING NATURAL DIVERSITY / CONSERVATION BIOLOGY

In Winter 2025, BIOL 230, *Conservation Biology*, is being offered at Yukon University concurrent with the University of Alberta's RENR 364, *Principles of Managing Natural Diversity*, as part of the Northern Environmental and Conservation Sciences, B.Sc. Program. All students registered in BIOL 230 or RENR 364 must adhere to requirements outlined in this course syllabus. University of Alberta students must also be aware of, and adhere to, the University's Code of Student Behaviour, referenced in the outline; Yukon University students must be aware of, and adhere to, Yukon University Academic Regulations, also referenced in the outline.

INSTRUCTOR:	Tara Stehelin, PhD
	Instructor, Biology, Chair, School of Science, Yukon University
OFFICE HOURS:	Wed. 2:30 – 4:00, or by appointment, anytime
OFFICE LOCATION:	A2513
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CLASS DAYS & TIMES: Tues/Thurs. 2:30 – 4:00, Jan. 7th – Apr. 10, 2025

CLASS LOCATION: A2601

COURSE DESCRIPTION

This is an introductory course assessing the essentials of a broad and sometimes value-laden discipline addressing the biodiversity crisis and challenges faced in the management of species at risk. The diversity of life on planet Earth is the focus, its values, its threats and potential solutions to its demise. Three aspects will be emphasized: factual content and principles of species at risk and extinction; individualized research and reporting; class interaction and discussion skills.

COURSE REQUIREMENTS

For students taking the course as BIOL 230: BIOL 101 at YukonU or equivalent.

For students taking the course as RENR 364: Registration in YukonU/University of Alberta Environmental and Conservation Sciences degree program, and successful completion of one of UofA BIOL 108, YU BIOL 101, or equivalent.

EQUIVALENCY OR TRANSFERABILITY

Receiving institutions determine course transferability. Find further information at: https://www.yukonu.ca/admissions/transfer-credit.

Students in the B.Sc. ENCS program should contact an ENCS advisor if they have questions about equivalency or transferability of this course.

LEARNING OUTCOMES

Upon successful completion of this course, students will be able to:

1. understand the scope, nature of, and reasons for the biodiversity crisis faced by life on planet Earth, including identifying the places where biodiversity is greatest and under the greatest threat,

2. understand and verbalize ethical debates about the role of humans in creating biodiversity collapse,

3. understand and pose arguments of threats to and the nature of the threats to all life on earth by the loss of diversity,

4. understand the process of extinction and impacts to population, community and ecosystem,

5. understand and apply methods for using statutes and other public processes for cataloguing, assessing, and listing species according to the risks for extinction, and outlining basic recovery strategies for species at risk, and

6. utilize the practise of defending and proposing management strategies to address biodiversity crises in verbal and written debate to a public audience.

COURSE FORMAT

The course content will be covered in two 1.5 hour lectures per week, and one - two short field trips per semester (details TBA). Although it will vary by individual, students should expect to spend 3 - 4 hours per week on studying or reading course materials outside of class time.

Delivery format

This course will be delivered in a face-to-face format, although remote attendance of lectures may be possible.

EVALUATION

For students enrolled in the course as BIOL 230, the course grade will be determined as follows:

Midterm exam	20 %
Course, discussion, and field trip participation	10 %
Advocacy paper & presentation or poster	40 %
Final exam	30 %
Total	**100%**

For students enrolled in the course as RENR 364, the course grade will be determined as follows:

Midterm exam	20 %
Course, discussion, and field trip participation	10 %
Advocacy paper & final presentation	40 %
Final exam	30 %
Total	**100%**

Participation

Students are expected to participate actively in classroom discussions and debates, including presenting an informed viewpoint based on previously-conducted research. A portion of the marks will be assigned based on active classroom participation and attendance of field trips. Field trips may occur outside of class time (because of transportation and time limitations); students are expected to participate in at least one field trip.

Assignments

Students will be required to prepare an advocacy paper and will present on this topic in a 10-15 minute oral presentation or a conference-style poster on a conservation biology issue (may be species or ecosystem focused). The report will summarize the scientific knowledge about a particular species or ecosystem followed by a persuasive explanation and argument for recommended conservation action, which the student is urging the assembled 'decision makers' to adopt. *Students registered in the course as RENR 364* will

prepare a detailed and comprehensive research paper as part of this project.

A detailed marking guide for the advocacy paper and presentation will be provided in class.

Exams
There will be a midterm exam and a final exam for this course. If a midterm or final exam is missed, a mark of zero will be assigned.

Due Dates and Late Assignments
Late assignments will be deducted -5% per late day. If a student cannot attend an exam or field trip, the instructor must be informed well in advance to determine if alternate arrangements can be made. Alternate arrangements will be considered for things such as specialist medical appointments, emergency situations, or exam conflicts.

Assignment of grades
The total numerical score will be converted to a grade on Yukon University's letter grading system. These are available in the Academic Regulations.
https://www.yukonu.ca/policies/academic-regulations

COURSE WITHDRAWAL INFORMATION

Students registered in BIOL230: the Last date to withdraw without academic penalty is Mar. 6, 2025. The Last date to apply to graduate is Feb. 15, 2025. Refer to the YukonU website for other important dates. https://www.yukonu.ca/admissions/important-dates

Students registered in RENR 364 should refer to the UAlberta calendar for important dates (calendar.ualberta.ca).

TEXTBOOKS AND LEARNING MATERIALS

Students are required to purchase a textbook; either as a hard copy from the YU bookstore, eText version, or from another source .
Sher, A 2022. *Introduction to Conservation Biology, 3rd Edition*. Oxford University Press.

COURSE WEBSITE

Many course materials are available on the online learning platform at Yukon University (Moodle); these include pdf versions of lecture slides, scientific journal articles, reminders, and other material, such as website links.

YukonU's Information Technology Services website contains information on support for how to use Moodle https://www.yukonu.ca/student-life/technical-resources

ACADEMIC INTEGRITY

Yukon University Academic Standards and Regulations

Students are expected to contribute toward a positive and supportive environment and are required to conduct themselves in a responsible manner. Academic misconduct includes all forms of academic dishonesty such as cheating, plagiarism, fabrication, fraud, deceit, using the work of others without their permission, aiding other students in committing academic offences, misrepresenting academic assignments prepared by others as one's own, or any other forms of academic dishonesty including falsification of any information on any Yukon University document.

Please refer to YukonU Academic Regulations & Procedures for further details about academic standing and student rights and responsibilities.

Please note that the use of Artificial Intelligence (AI) software to complete any assessed work will be considered plagiarism. Works need to be cited.

University of Alberta Academic Integrity and Code of Student Behaviour

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at www.governance.ualberta.ca) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

All students at the University of Alberta are subject to the Code of Student Behaviour, as outlined at: http://www.governance.ualberta.ca/en/CodesofConductandResidenceCommunityStandards/CodeofStudentBehaviour.aspx Please familiarize yourself with it and ensure that you do not participate in any inappropriate behavior as defined by the Code. Key components of the code include the following statements.

30.3.2(1) No Student shall submit the words, ideas, images or data of another person as the Student's own in any academic writing, essay, thesis, project, assignment, presentation or poster in a course or program of study.

30.3.2(2) c. No Student shall represent another's substantial editorial or compositional assistance on an assignment as the Student's own work.

PROFESSIONALISM AND CLASSROOM RULES OF ENGAGEMENT

Students are expected to attend all lectures and field trips, be engaged and courteous in all course activities, and to be on time for class. Please do not use cellular phones during

class. Laptops are permitted for note taking and in-class work; however, please do not use laptops in class for non-class-related activities. While in computer labs, students are expected to refrain from using the computers to engage in non-class-related activities (e.g. social media).

ELECTRONIC DEVICES

During exams no electronic devices are permitted, except approved non-programmable calculators.

RECORDING OF LECTURES

Audio or video recording, digital or otherwise, of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as a part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course is to be used solely for personal study, and is not to be used or distributed for any other purpose without prior written consent from the content author(s).

Please note that some classes may be recorded using web conferencing software, and links to recordings may be posted on the class website. These are only available to instructors and students registered in the course.

ACCESSIBILITY AND ACADEMIC ACCOMMODATION

Yukon University is committed to providing a positive, supportive, and barrier-free academic environment for all its students. Students experiencing barriers to full participation due to a visible or hidden disability (including hearing, vision, mobility, learning disability, mental health, chronic or temporary medical condition), should contact Accessibility Services for resources or to arrange academic accommodations: access@yukonu.ca.

TOPIC OUTLINE

WEEK	TOPIC	Chapters and notes
1	Course Introduction	CH 1 *First class Jan. 7*
2	What is *Biodiversity*? Where is the greatest biodiversity found?	CH 1 CH 2
3	Values of biodiversity	CH 3
4 5 6	Threats to biodiversity Overexploitation, invasive species Extinction Measuring risk of extinction Problems of small populations	CH 4 CH 5
7	Conserving populations and species Applied population biology ***Midterm Exam***	CH 6 ***Feb 13***
	READING WEEK – NO CLASSES **Please read Chapter 6**	***Feb. 17 – 21***
8	Legal protection of species Protecting biodiversity and bringing species back from the brink	CH 6 (Guest lecture) CH 7
9 10	Protected areas Landscape ecology Managing protected areas Ex Situ Conservation strategies First Draft of Advocacy Paper	CH 8 ***due Mon. March 3rd 5:00 pm***
11	Ecosystem management Restoration ecology	CH 9 CH 10
12	The challenges of sustainable development ***Thursday March 13th 12:00 – 4:00 pm, field trip (date to be confirmed)***	CH 11
13	An agenda for the future Council of all Beings	CH 12
Final Advocacy Paper due Tuesday April 1st, 5:00 pm ***Final Presentations and Poster Sessions during student conference – April 3rd? Date to be confirmed!***		
	Course Review, *Last Class*	Apr. 10
14	***Final Exam***	Apr. 15, 4:00 – 7:00 pm