

University of Alberta
Principles of Managing Natural Diversity - REN R 364
Fall, 2019

Instructor Nadele Flynn
Office: NR 28, Yukon Research Centre (Basement)
Telephone: 867-332-8969
Email Address: nadele@ualberta.ca
Office Hours: Tuesday and Thursdays (8:30 – 4:30)
Students can contact me to arrange a time to meet outside of these hours, I am always available to answer question by email or via eClass

Lecture Room and Time: C1511, Tuesday & Thursday @ 9:00-10:30 AM

Course Description:

This is an introduction to the theoretical foundation for conservation and biodiversity science. Elements of population, community and landscape ecology will be reviewed, and their application to real-world challenges discussed. Objective is to provide students with the scientific tools to evaluate and develop conservation strategies for maintaining diversity in human-altered systems. The sociopolitical arenas in which conservation decisions are made and implemented are also explored given their relevance in assessing trade-offs and decision-making. Prerequisites: BIOL 208 or (BIOL 108 and REN R 110) and *60 of university-level coursework. Credit will only be given for both REN R 364 and (ENCS 364 or BIOL 367). This course has limited enrolment, with preference given to students in the Conservation Biology major of the ENCS Program.

Course Format:

The course will consist of two lectures a week, and required short readings/videos. We will schedule guest lectures throughout the course wherever possible. Although we will follow the required text in terms of content covered, class discussions will include debate and discussion of the content as well as additional content to compliment what is in the required text. There will be three assignments focused on theory, problem-solving, and decision-making. Each lecture will be recorded and made available to the students via eClass.

- i. In-class presentation: The role and influence of media on public perception and opinion of a conservation issue (10 min presentation with 5 minutes for questions)
- ii. Review paper: The paper will involve a synthesis of information contained in a YESAB application. The paper will be written in a style of a contractor advising a proponent (non-expert) of potential impacts of their project on biodiversity, propose recommendations and mitigation options (2000 words, not including references, figures or tables)
- iii. Review paper: Qualitative assessment of real-scenario issues focused on climate change challenges for biodiversity management. The paper will involve a synthesis of information as a written paper presenting the material in a scientific manner for an audience with science expertise (2500 – 3000 words, not including references, figures or tables)

Course Objectives and Student Learning Outcomes and Competencies:

1. Understand processes that affect (including threats) biodiversity patterns & dynamics;
2. Improve critical thinking & communication skills in conservation & biodiversity science;
3. Build problem-solving, decision-making & management skills for biodiversity conservation;
4. Learn how to address & solve conservation problems.

eClass:

Lectures, recordings and any additional readings for the course will be posted on eClass. Students will submit all assignments to eClass and receive grades (only visible to the student) and assignment comments. Students can also use eClass to post feedback (anonymous), pose questions to the instructor and/or students enrolled in the course. eClass will also be used to post practice exams and quizzes to help students prepare for exams.

Papers are to be submitted to eClass as electronic PDF submissions on the due date by midnight.

Students not familiar with eClass and its capabilities are encouraged to review online information from IST: [IST > eClass Helpful Information](#)

Evaluation:

Component	% of grade
Midterm exam	20
Final exam	30
Class assignments (3)	45
Participation	5
TOTAL	100

Breakdown of points:

- 1. Midterm exam (20%):** short answer & essay questions
- 2. Final exam (30%):** same style (cumulative)
- 4. Class assignments (45%):** three assignments (worth 15% each) arising from course materials
- 4. Participation (5%):** participation in class discussions (asking and responding to discussion questions)

Due Dates:

Individual presentations submit topic – Oct. 10
YESAB paper topic due – Oct. 17
Individual presentations – Oct. 29 & 31
Climate paper topic due – Nov.12
YESAB paper due – Nov. 14
Climate paper due – Dec. 3

Course Exams:

Mid-term exam, 9:00 – 10:30, Oct. 15 (in class)
Final exam, 9:00 – 12:00, Dec. 12 (Room A2210)

Tentative Class Schedule and/or List of Course Topics

Wk.	Mo.	Days	Lecture topics (2019)	Chapters
1	Sep	5	Introduction to conservation	1 & 2
2	Sep	10-12	History of Conservation The Social and Political Dimensions of Conservation	2 & 3
3	Sep	17-19	The Scientific Dimensions of Conservation	4
4	Sep	24-26	Threats to Biodiversity Species-Level Conservation	5 & 6
5	Oct	1-3	Species-Level Conservation Ecosystem-Level Conservation	6 & 7
6	Oct	8-10	Ecosystem-Level Conservation Review	7
7	Oct	15-17	Midterm. Protected Areas	8
8	Oct	22-24	Climate Change	9
9	Oct	29-31	Class Presentations	---
10	Nov	12	Structured Decision Making YESAB paper due (Nov 14*)	10
11	Nov	19-21	Structured Decision Making	10
12	Nov	26-28	In class discussions (case studies)	TBD
13	Dec	3-5	Climate paper due (Dec 3) In class discussions (case studies) and Course wrap-up	TBD
	Dec	12	Final exam 9:00 – 12:00 (Room A2210)	---

Required Text:

R.R. Schneider (2019) *Biodiversity Conservation in Canada: From Theory to Practice*. The Canadian Centre for Translational Ecology, Edmonton, Alberta. 364 pp. ISBN 978-1-9995078-0-0

Available in the Yukon College Bookstore. Two copies are placed on reserve in the Yukon College library.

Optional readings:

Sodhi, N.S. & Ehrlich, P.R. (2010) *Conservation Biology for all*. 1st Edition. Oxford University Press, 344 pg.

Van Dyke, F. (2008) *Conservation Biology: Foundations, Concepts, Applications*. 2nd Edition. Springer, 477 pg.

Primack, R.B. (2014) *Essentials of Conservation Biology*. 4th Edition. Sinauer Associates, Inc. 603 pg.

All these textbooks are standard conservation biology texts. Sodhi & Ehrlich's book is freely available online.

Missed Assignments and Mid-term Exam:

Overdue papers will be deducted 10% for every day they are late. When a student is absent from the mid-term examination, or fails to hand in assignments or other term work on time, that student may apply for an excused absence. Students should contact the instructor as soon as they are able, having regard to the circumstances. If a student fails to notify an instructor within a reasonable time of their request for an excused absence, the instructor may deny the request unless the student provides a legitimate reason for the delay. Extensions may be granted at the discretion of the instructor.

Missed Exams:

When a student is absent from a final examination for a legitimate reason, that student may apply to their Faculty Office for a deferred examination. If a student has missed a final examination and has

applied for a deferred exam, the instructor will calculate a final grade for the student using zero as the value for the final exam. This will be the grade that the student will get if they are not granted the deferred exam or if they do not write the deferred exam.

Course Requirements, Marking and Grading:

The Assessment and Grading Policy is available at:

[U of A Policies and Procedures On-Line \(UAPPOL\) > Assessment and Grading Policy](#)

The Grading Procedure is available at:

[U of A Policies and Procedures On-Line \(UAPPOL\) > Grading Procedure](#)

Use of media:

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).

Plagiarism and Cheating:

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.

Code of Student Behaviour

All students at the University of Alberta are subject to the Code of Student Behaviour, as outlined at: [University Governance > Code of Student Behaviour](#). 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."

Students should speak with the course instructor about any questions or concerns about the code. Students should be particularly aware of the code as it pertains to internet and library research, use of previous class notes, reclamation plans of former students and interviews or discussions with others.

Professionalism and Classroom Rules of Engagement

When you are in class it is expected that you are present, engaged and courteous in all course activities, starting and ending class on time. If you are late please enter but be careful not to disturb the class discussion,, cellular phones and pagers are expected to be turned off during class – if they need to be on please discuss this with the instructor to ensure minimal disturbance to the class, laptops/IPads etc can be used for work but other uses will distract from being present and engaged.

Use of Original Course Materials by Students

All original course materials prepared by the instructor are considered to be the intellectual property of the instructor (unless otherwise noted), and are protected by law under Canada’s Copyright Act. “Course materials” include slides, presentations, handouts, lecture notes, recorded lectures, and any other materials distributed or made available to students by the course instructor. Permission is given for individual students to use these materials for their own study purposes in this course. Students must not publish, post on a public Internet site, sell, rent, or otherwise distribute any course materials without the instructor’s express permission.