



RENR 376: Wildlife Ecology and Management

In Winter 2021, the University of Alberta's RENR 376, *Wildlife Ecology and Management*, is being offered as part of the Northern Environmental and Conservation Sciences, B.Sc. Program. It is being taught concurrently with RRMT 223, *Wildlife Management*, offered at Yukon University. As such both courses are being co-instructed with Larry Gray. All students registered in RENR 376 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.

INSTRUCTOR: Thomas Jung
Adjunct Professor, University of Alberta
Senior Wildlife Biologist, Government of Yukon

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DAYS & TIMES: Lectures: Tuesdays 10:30 to 12:00, via Zoom. Additionally, a second, pre-recorded lecture will be made available most weeks and posted to Moodle

Labs: None, see below.

COURSE DESCRIPTION:

RENR 376: Principles of wildlife ecology as applied to the management of wildlife communities. Special emphasis on the growth and regulation of populations, spatial patterns of population distribution, and interactions among species and their environments. Assignments will include quantitative exercises that demonstrate key principles.

STUDENT LEARNING OUTCOMES AND COMPETENCIES:

Upon successful completion of this course students will be introduced to:

1. the guiding principles and practices underlying wildlife management, including historical and contemporary developments;
2. wildlife ecology as it relates to wildlife management;
3. key techniques used by wildlife biologist to gain scientific and social science data used to inform wildlife management;
4. the management of select wildlife populations through relevant case studies; and
5. various issues concerning wildlife management, and be encouraged to identify their own values in wildlife conservation.

COURSE FORMAT:

This course will be delivered in a lecture format: with approximately 3 hours of lecture per week. Lectures will largely focus on concepts, principles and current issues in contemporary wildlife management.

Given COVID-related restrictions, lectures will be via Zoom. Those on Tuesdays will be “live” and an additional lecture will be pre-recorded most weeks and available on Moodle. In addition, some required videos will be noted in class lecture materials for students to watch outside of class (usually via YouTube). Students will be able to view pre-recorded lectures or required videos as their schedules allow.

Labs will not be a part of this course this year. Instead, there will be a greater emphasis on assignments to ensure that students are familiar with key concepts taught in the course, and to broaden their ability to think more critically about the material presented in class.

COURSE PREREQUISITES AND/OR CO-REQUISITES:

Registration in University of Alberta BSc in Environmental and Conservation Sciences degree program Prerequisite: BIOL 208.

REQUIRED TEXTBOOKS/MATERIALS:

There is no required textbook for this course. Most assigned readings will be from the primary literature (journal papers) or YouTube based videos. However, for students with an aspiration to become a wildlife management professional it is recommend that they acquire either (or both) of the texts below. Key readings from the primary or popular literature will be distributed electronically to students.

Fryxell, J.M., A.R.E. Sinclair, and G. Caughley. 2014. Wildlife Ecology, Conservation and Management. Wiley Inc.

Krausman, P.R., and J.W. Cain. 2013. Wildlife Management and Conservation. John Hopkins University Press.

COURSE WEBSITE

Lecture notes and Zoom presentations will be posted on Moodle weekly.

UNIVERSITY OF ALBERTA ACADEMIC INTEGRITY AND CODE OF STUDENT BEHAVIOUR

Plagiarism and Cheating

The University of Alberta is committed to highest standards of academic integrity and honesty. Students must be familiar with standards regarding academic honesty and uphold policies of the University. 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 in the 2014/2015 University Calendar. Students should familiarize themselves with the current version of the code and ensure they do not participate in any inappropriate behaviour as defined by it. Key components of the code specific to this course include the following statements. Plagiarism: 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. Cheating: no student shall represent another's substantial editorial or compositional assistance on an assignment as the student's own work. The most recent version of the Code of Student Behaviour can be found on line on the University of Alberta web site.

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.

Plagiarism

Plagiarism involves representing the words of someone else as your own, without citing the source from which the material is taken. If the words of others are directly quoted or paraphrased, they must be documented according to standard procedures. The resubmission of a paper for which you have previously received credit is considered a form of plagiarism. Plagiarism is academic dishonesty, a serious academic offence, and will result in you receiving a mark of zero (F) on the assignment or the course. In certain cases, it can also result in dismissal from the College. Do not underestimate the impact such a situation will have on your reputation.

PROFESSIONALISM AND CLASSROOM RULES OF ENGAGEMENT

Students are expected to attend all lectures and labs, 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. Facebook, etc.).

COURSE REQUIREMENTS/EVALUATION:

Attendance and Participation

This course is largely based on material delivered and discussed in lectures and labs. As such, student attendance and active participation in class is required. However, attendance and participation do not directly factor into student's evaluation.

Assignments

Students will need to complete four (4) assignments. Two of which will deal with the social science aspects of wildlife management and the other two the applied science aspects. Assignments will include exercises that demonstrate key principles.

Exams

There will be both a mid-term and final exam for this course.

Evaluation

The course grade will be determined as follows:

	Percent
Assignments (4)	50%
Mid-Term Exam	25%
Final Exam	25%

Assignments

Assignment #1 will ask students to interpret survey data from three groups of Yukoners (public, hunters, and wildlife managers) on their acceptability of different management actions for bison. Students will review analyzed data to discuss similarities and differences among groups and to provide a management prescription. This assignment will introduce students to interpreting human dimensions data for wildlife management purposes, including using the Potential for

Conflict Index.

Assignment #2 will ask students to review and compare and contrast the tone, direction, specificity, and recommended actions in Yukon management plans for elk and grizzly bear. The purpose of this assignment is to give students exposure to different management plans for wildlife in northern Canada.

Assignment #3 will ask students to analyze a small set of GPS collar data for bison in Yukon in relation to a proposed alpine ski development. They will be asked to map the home ranges and movements of bison in the project area and make recommendations using these data on where to locate a road to reduce impact to bison. The assignment will give students experience with managing and mapping wildlife telemetry data, and making recommendations of the sort required in environmental impact assessments.

Assignment #4 will ask students to analyze a data on small mammal abundance in logged forest in southeasterh Yukon. They will need to estimate the density in small mammal species in different plots and make predictions on how these may affect locally-important furbearer species using the area (i.e., pine marten). This assignment will give students exposure to managing wildlife datasets and

Due Dates

Class assignments must be submitted electronically, via email, by 11:59 pm on the due date.

Grades for late assignments will be reduced by 3% for each day after the due date that they are late. Assignments more than 7 days late will receive a grade of zero.

Under special circumstances, students may receive an extension on the due date, providing they request such to the instructor before the due date.

The following are important due dates.

Friday 12 February 2021	Assignment #1
Friday 26 February 2021	Assignment #2
TBD	Mid-Term Exam
Friday 12 March 2021	Assignment #3
Friday 9 April 2021	Assignment #4
TBD	Final Exam

STUDENTS WITH DISABILITIES OR CHRONIC CONDITIONS:

Reasonable accommodations are available for students with a documented disability or chronic condition. It is the student's responsibility to seek these accommodations. If a student has a disability or chronic condition and may need accommodation to fully

participate in this class, he/she should contact the Learning Assistance Centre (LAC) at (867) 668-8785 or lassist@yukoncollege.yk.ca.

EQUIVALENCY/TRANSFERABILITY:

For current information on course transferability see <http://www.bctransferguide.ca>

TENTATIVE SCHEDULE (SUBJECT TO CHANGE)

Week	Tuesday Lecture Topic	Additional (not scheduled) Lecture Topic
5 January	No Class	None
12 January	Course Introduction	What is Wildlife Management?
19 January	The North American Model of Wildlife Management	Human Dimensions of Wildlife
26 January	Ethics and Values in Wildlife Management	Who Manages Wildlife?
2 February	Wildlife Management Planning	Wildlife Measurements
9 February	Uncertainty and Experimentation	Food and Nutrition
16 February	Population Ecology Primer	Predation
23 February	Reading Week (No Classes)	
2 March	Predator Control	Competition
9 March	Niche Overlap	Symbiotic Relationships
16 March	Game Management	Sustaining Migration
23 March	Species at Risk Management 1	Species at Risk Management 2
30 March	International Trade in Wildlife	Human-Wildlife Conflict

6 April	Human Disturbance of Wildlife	Special Species: Flagships, Indicators & Keystones
13 April	Class Review (Optional)	