



School of Science  
**ENVS 225**  
Environmental Change and Fish & Wildlife Health  
Fall  
3 credits

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## Course Outline

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**INSTRUCTOR:** Kirsten Reid, MSc.

**E-MAIL:** [kirsten.reid@yukonu.ca](mailto:kirsten.reid@yukonu.ca)

**OFFICE:** A2806 when on campus

**PHONE:** NA

**TIME/DATES:** Tues/Thurs 2:30 – 4:00 in A2601

**OFFICE HOURS:** Before or after class; other times by appointment.

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### COURSE DESCRIPTION

This course has been developed partly in collaboration with Canada's Northern Contaminants Program (NCP) and Trent University's Department of Indigenous Environmental Studies. It will be of interest to all northerners, but especially anyone interested in fisheries, wildlife, and land and resource management. The course begins with an overview of global environmental changes and how they impact the North, especially the Yukon. These environmental changes include long-range contaminants, contaminants from mining, changes in fish and wildlife disease patterns and climate change. We discuss environmental monitoring and community education as two tools used to address environmental change and fish and wildlife health. The course integrates both traditional knowledge and science. Students will have the opportunity to undertake practical activities and research in their own community.

### COURSE REQUIREMENTS

Prerequisite(s): There is no prerequisite for the 050 level, but for the 225 level, the pre-requisite is 2nd year standing or permission of the instructor.

### EQUIVALENCY OR TRANSFERABILITY

Please be aware that receiving institutions determine course transferability. Find further information on transferability of most courses here:

<https://www.yukonu.ca/admissions/transfer-credit>

### LEARNING OUTCOMES

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

1. Recognize the geographic and global scope of unprecedented environmental changes at this time in Earth's history,
2. recognize and summarize the diverse impacts of climate change on the northern environment,
3. understand the sources (natural and human-made), pathways, action, levels and trends of contaminants in arctic ecosystems, including long-range contaminants and contaminants from mining,
4. understand the major diseases and disease processes of northern fish and wildlife and how environmental change such as climate change may affect these processes,

- outline the process of environmental monitoring and community education principles, procedures and programs that are currently used or needed in the Yukon.

## **COURSE FORMAT**

This course is intended for face-to-face attendance. There will be three hours of lecture (in two 1.5-hour blocks) per week. Although it will vary from individual to individual, students should expect to spend about 4 hours on course material outside of the classroom time (per week) on studying or completing assignments. Students will be expected to access the YU online learning platform for additional material (Moodle).

## **EVALUATION & IMPORTANT DATES**

Midterm 1	October 6	10%
Midterm 2	November 8	10%
Assignment 1	October 11	10%
Assignment 2	November 3	15%
Presentation	November 15 & 17	10%
Final assignment	November 29	20%
Final Exam		25%
Total		<b>100%</b>

## **COURSE WITHDRAWAL INFORMATION**

The last date to withdraw without academic penalty is Nov. 4<sup>th</sup>, 2022. Refer to the YukonU website for other important dates.

## **TEXTBOOKS & LEARNING MATERIALS**

There is no formal textbook for the course. There will be readings posted on Moodle prior to each lecture.

## **ACADEMIC INTEGRITY**

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 Academic Regulations & Procedures for further details about academic standing and student rights and responsibilities. <https://www.yukonu.ca/policies/academic-regulations>

## **ACADEMIC ACCOMMODATION**

Reasonable accommodations are available for students requiring an academic accommodation to fully participate in this class. These accommodations are available for students with a documented disability, chronic condition or any other grounds specified in section 8.0 of the Yukon University Academic Regulations (available on the Yukon University website). It is the student's responsibility to seek these accommodations by contacting the Learning Assistance Centre (LAC): [LearningAssistanceCentre@yukonu.ca](mailto:LearningAssistanceCentre@yukonu.ca).

## **ROUGH TOPIC OUTLINE**

\*Order of material is subject to change

	<b>DATE</b>	<b>TOPIC</b>
<b>Week 1</b>	September 6, 8	Introduction to the course Global climate change
<b>Week 2</b>	September 13, 15	Climate change in the north
<b>Week 3</b>	September 20, 22	Contaminants in northern ecosystems
<b>Week 4</b>	September 27, 29	Mining Caribou
<b>Week 5</b>	October 4, 6	Caribou 1 <sup>st</sup> Midterm
<b>Week 6</b>	October 11, 13	Wildlife diseases
<b>Week 7</b>	October 18, 20	Caribou health
<b>Week 8</b>	October 25, 27	Microplastics
<b>Week 9</b>	November 1, 3	Regulatory frameworks Community education principles
<b>Week 10</b>	November 8, 10	2 <sup>nd</sup> Midterm
<b>Week 11</b>	November 15, 17	Student Presentations
<b>Week 12</b>	November 22, 24	TBD
<b>Week 13</b>	November 29, December 1	Course Wrap-up & Review