

	<p style="text-align: center;">School of Science ENVS 225 Environmental Change and Fish and Wildlife Health</p>
	<p style="text-align: center;">Term: Fall 2024 Number of Credits: 3</p>
<p>Course Outline</p>	

INSTRUCTOR: Tara Howatt, PhD
E-MAIL: thowatt@yukonu.ca
OFFICE: A2303b, office hours by appointment

LECTURE: Monday and Wednesday 10:00 – 11:50 am
LECTURE CLASSROOM: TBD, zoom link also provided on Moodle.

COURSE DESCRIPTION

This course will be of interest to all northerners, but especially anyone interested in fisheries, wildlife, and land and resource management. The first half of the course covers the issue of long-range contaminants in northern ecosystems; what they are, where they come from, how they get here, the latest research results on levels and trends, and what it all means for northern fisheries and wildlife. The second half of the course covers a range of issues affecting the health of northern fish and wildlife including climate change, contaminants from mining, selected fish and wildlife diseases and other topics. The course will integrate both traditional knowledge and science. Students will have the opportunity to undertake practical activities and research in their own community.

COURSE REQUIREMENTS

This is a second-year level course and expectations are set accordingly. Students are assumed to have taken other university-level courses in addition to the prerequisites.

Prerequisite(s): ENGL 100

EQUIVALENCY OR TRANSFERABILITY

Receiving institutions determine course transferability. Find further information at:
<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,

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

COURSE FORMAT

Weekly breakdown of instructional hours

This course will have two 1.5-hr lectures each week. Students are expected to keep up with assigned course readings and complete assignments as necessary outside of scheduled hours each week. Although it will vary from individual to individual, students should expect to spend 4-5 hours on course material outside of the classroom time (per week) on studying or completing assignments.

Students are expected to attend both lectures each week. If a student is absent for a lecture, they must contact the instructor and make up for the missed material on their own time.

Delivery format

This course will be delivered on campus in a hyflex setting. Lectures will take place in a classroom (TBD) and over zoom.

EVALUATION

Assignments	25%
Discussion – Pre-discussion Questions	10%
Discussion - Post-discussion Reflections	10%
Discussion - Facilitation	15%
Midterm Exam	15%
Final Exam	25%
Total	100%

Late Policy

A late penalty will be applied to assignments and discussion reflections when submitted after the due date. A deduction of 10% per day up until a maximum of 50% will be applied. Students are granted a one-time late submission for assignments and discussion reflection submissions, no penalty, no questions asked. Students must hand in the work *before* the graded work is returned to students.

Discussion facilitation will occur during class and pre-discussion questions support the discussion facilitation preparation. Therefore, **no late submissions of pre-discussion questions or the discussion facilitation will be accepted.** The one-time late submission does not apply to these activities.

Extensions may be granted exceptionally and under special circumstances. Please communicate with your instructor **prior to the due date.** Once the due date has passed no extension will be granted.

COURSE WITHDRAWAL INFORMATION

The last date to withdraw without academic penalty is November 4, 2024. Refer to the YukonU website for other important dates.

TEXTBOOKS & LEARNING MATERIALS

There is no assigned textbook for this course; however, you will be expected to keep up with assigned readings/videos as the course progresses. These readings will be posted on Moodle and discussed in class.

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.

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

A detailed schedule with due dates will be provided to students during the first lecture. Topics that will be covered in this course include:

Course outline may be altered at any point at the discretion of the instructor

Module	Topics
1: Introduction	Introduction to Environmental Change and Fish and Wildlife Health
2: Contaminates in Northern Ecosystems	Contamination Sources and Pathways
	Persistent, Bioaccumulative and Toxic Chemicals
	Metals and Mining
	Nutrients and Pesticides
	Microplastics
3: Climate Change in Northern Environments and Ecosystems	Climate Change Impacts on the Environment
	Ecological Responses to Climate Change
	Ocean Acidification
	Noise Pollution
4: Fish and Wildlife Diseases	Fish and Wildlife Diseases
5: Environmental Monitoring	Environmental Monitoring: Methods & Programs
6: Community Education and Regulatory Frameworks	Community Education and Regulatory Frameworks