



School of Science
ENVS 225
Environmental Change and Fish & Wildlife Health
Fall 2021
3 Credits

Course Outline

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COURSE DESCRIPTION

The course begins with an overview of global environmental changes and particularly 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, the extinction/biodiversity crisis and climate change. We discuss environmental monitoring and community education as two tools used to address environmental change and fish & wildlife health. The course strives integrates both traditional knowledge and science and a “two-eyed” perspective on all topics. The course focuses not only on the critical problems facing fish & wildlife and humanity, but also explores critical solutions.

COURSE REQUIREMENTS

2nd year standing or permission of the instructor.

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...

- a. Recognize and appreciate the geographic and global scope of unprecedented environmental changes at this time in Earth’s history.
- b. Understand climate change and its diverse impacts on the northern environment.
- c. 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.

- d. Know and understand the major diseases and disease processes of northern fish and wildlife and how environmental change such as climate change may affect these processes.
- e. Understand the 6th mass extinction and its causes
- f. Understand biodiversity and conservation principles and practices.
- g. Understand 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

Lectures, readings, videos and class discussions three hours per week. There will be a few field trips on campus during classroom time and one field trip off-campus.

Delivery format

This course will be delivered in a face-to-face format, both indoors in the classroom and outdoors (field trips). If necessary and depending on any further COVID restrictions, the course will be switched to a blended format (some F2F classes + some online classes) or even completely online with some self-directed field trips.

EVALUATION

Participation in Online Forum	40%
Quizzes	25%
Research Poster	35%
Total	100%

COURSE WITHDRAWAL INFORMATION

Refer to the YukonU website for important dates.

TEXTBOOKS & LEARNING MATERIALS

Readings and other resources (mostly online) will be provided. A reading list will be provided as well, but there is **no** textbook.

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.

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.

TOPIC OUTLINE

	DATE	TOPIC
Week 1	September 7, 9	Introduction to the Course
Week 2	September 14, 16	Global Perspectives What is Biodiversity? Where is the World's Biodiversity Found?
Week 3	September 21, 23	An Overview of Environmental Issues and Changes in the Yukon Introduction to First Nations perspectives
Week 4	September 28, 30	Global Change & Challenge: Contaminants & Mining
Week 5	October 5, 7	Global Change & Challenge: Long-Range Contaminants
Week 6	October 12, 14	Global Change & Challenge: Climate Change
Week 7	October 19, 21	SELF STUDY
Week 8	October 26, 28	Global Change & Challenge: The Biodiversity Crisis
Week 9	November 2, 4	Global Change & Challenge: Habitat Destruction, Fragmentation, Degradation
Week 10	November 9	Global Change & Challenge: Invasive Species
Week 11	November 16, 18	Global Change & Challenge: Fish & Wildlife Health and Disease
Week 12	November 23, 25	Global Change & Challenge: An Agenda for the Future
Week 13	November 30, December 2	Environmental Monitoring
Week 14	December 7	Course Wrap-up & Review