



School of Science
ENVS 227
Yukon Source Water Protection and Watershed
Stewardship Term: Winter 2024
Number of Credits: 3

Course Outline

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

LECTURE: Tuesday and Thursday 4:00 – 5:20 pm
LECTURE CLASSROOM: A2204, zoom link also provided on Moodle.

COURSE DESCRIPTION

The course has two over-arching goals. One is to learn ways to foster holistic connections between people, communities and watersheds, connections based on more than science. The second is to help facilitate and enhance, using both science and indigenous knowledge, the capacity of Yukon communities and First Nations to develop and implement plans for source water protection and watershed stewardship.

The course aims to increase community understanding of water management principles and promote acceptance of community-based watershed stewardship. The course encapsulates multiple perspectives and will include local indigenous knowledge and western science (i.e. hydrology, biology), in order to create a more comprehensive approach towards drinking water security and safety and overall watershed stewardship.

COURSE REQUIREMENTS

Prerequisite(s): None.

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. understand the scope of global water issues as well as water issues within Canada and the North;
2. demonstrate an ability to apply both Indigenous Knowledge and Western science to issues of source water protection and watershed stewardship in the Yukon;
3. understand principles and concepts of source water protection and watershed stewardship;
4. develop and evaluate basic source water protection plans;

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- 5. demonstrate the ability to use various strategies to engage their home community in addressing local source water protection issues.

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 (A2204) and over zoom.

EVALUATION

Quizzes	25 %
Written Assessments	15%
Discussions	15 %
Term Project	20 %
Final Exam	25 %
Total	100 %

Late Policy

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

Extensions will not be granted. If you anticipate difficulty submitting work on time, please speak to the instructor *before* the due date and an alternative submission plan may be possible.

COURSE WITHDRAWAL INFORMATION

The last date to withdraw without academic penalty is March 7, 2024. Refer to the YukonU website for other important dates.

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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.

Learning Links: <https://www.yukonu.ca/student-life/learning-matters>

Health and Wellness: <https://www.yukonu.ca/student-life/health-wellness>

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

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	Topic
Module 1	Introduction
Module 2	Defining Water, Water Cycle
Module 3	Atmospheric Water
Module 4	Terrestrial Water
Module 5	Ground Water
Module 6	Ocean Water
Module 7	Climate Change
Module 8	Characterization of a Watershed
Module 9	Yukon Organizations and Policies
Module 10	Water Monitoring and Contamination
FINAL EXAM: APRIL 18 2024 1:00 - 4:00PM	