



COURSE OUTLINE

ENVS 227
YUKON SOURCE WATER PROTECTION AND WATERSHED
STEWARDSHIP

3 CREDITS

PREPARED BY: Larry Gray, Instructor

DATE: November 13, 2020

APPROVED BY: Joel Cubley, Chair, School of Science

DATE: November 13, 2020



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YUKON SOURCE WATER PROTECTION AND WATERSHED STEWARDSHIP

INSTRUCTOR:	Larry Gray	OFFICE HOURS:	By appointment
OFFICE LOCATION:	A2303	CLASSROOM:	Zoom
E-MAIL:	lgray@yukonu.ca	TIME:	Wednesdays, 10:30-12:00 pm.
TELEPHONE:	(867) 456-8607	DATES:	Jan. 6 – April 14, 2021

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.

The course will be offered at two levels (200 level and college prep level) and the target audience will include water professionals (i.e. First Nation water operators and Lands and Resources officers) as well as the general public.

Development of this course has been a collaboration between Trent University (Institute of Watershed Science and Department of Indigenous Environmental Studies) and Yukon College. Funding was through an RBC Bluewater Fund grant to Trent University.

PREREQUISITES

Pre-requisite is second-year standing or permission of the instructor.

RELATED COURSE REQUIREMENTS

A laptop or PC is required for Zoom classes and assignments.

EQUIVALENCY OR TRANSFERABILITY

In progress.

LEARNING OUTCOMES

- a. With successful completion of the course, students will be able to understand the scope of global water issues as well as water issues within Canada and the North.
- b. With successful completion of the course, students will have demonstrated an ability to apply both indigenous knowledge and western science to issues of source water protection and watershed stewardship in the Yukon.
- c. Upon successful completion of the course, students will know and understand principles and concepts of source water protection and watershed stewardship.
- d. Upon successful completion of the course, students will be able to develop and evaluate basic source water protection plans.
- e. Upon successful completion of the course, students will have demonstrated the ability to use various strategies to engage their home community in addressing local source water protection issues.

COURSE FORMAT

This course is designed for distance delivery. There will be one Zoom videoconference each week and a course website, including a discussion forum and links to other information sources.

ASSESSMENTS:

Attendance at all videoconference sessions is mandatory. Unexcused absences in excess of 10% of scheduled activities may result in dismissal from the course at the instructor's discretion.

EVALUATION:

ASSIGNMENTS	PERCENTAGE (%)
Journal	45%
Advocacy Paper, Presentation & Poster	45%
Participation	10%
NO MIDTERM EXAM	NO FINAL EXAM
TOTAL	100%

REQUIRED TEXTBOOKS AND MATERIAL

There is no formal textbook. A compendium of selected readings and on-line resources will form the text for the course.

ACADEMIC AND STUDENT CONDUCT

Information on academic standing and student rights and responsibilities can be found in the current Academic Regulations that are posted on the Student Services/ Admissions & Registration web page.

PLAGIARISM

Plagiarism is a serious academic offence. Plagiarism occurs when a student submits work for credit that includes the words, ideas, or data of others, without citing the source from which the material is taken. Plagiarism can be the deliberate use of a whole piece of work, but more frequently it occurs when students fail to acknowledge and document sources from which they have taken material according to an accepted manuscript style (e.g., APA, CSE,

MLA, etc.). Students may use sources which are public domain or licensed under Creative Commons; however, academic documentation standards must still be followed. Except with explicit permission of the instructor, resubmitting work which has previously received credit is also considered plagiarism. Students who plagiarize material for assignments will receive a mark of zero (F) on the assignment and may fail the course. Plagiarism may also result in dismissal from a program of study or the University.

YUKON FIRST NATIONS CORE COMPETENCY

Yukon University recognizes that a greater understanding and awareness of Yukon First Nations history, culture and journey towards self-determination will help to build positive relationships among all Yukon citizens. As a result, to graduate from ANY Yukon University program, you will be required to achieve core competency in knowledge of Yukon First Nations. For details, please see www.yukonu.ca/yfnccr.

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. If a student requires an academic accommodation, they should contact the Learning Assistance Centre (LAC): lac@yukonu.ca.

TOPIC OUTLINE

DATE	TOPIC
January 6	Course Introduction
January 13	Holistic Perspectives; Indigenous Knowledge & Western Science; Water Protection in Story and Oral History
January 20	Global & Canadian Perspectives on Water; What is Source Water Protection and Why do we need it?
January 27	Hydrology
February 3	Hydrology
February 10	Hydrology
February 17	Characterizing Your Watershed; Water Management in the Yukon
February 24	READING WEEK
March 3	Water Management Board & YESAB
March 10	Water Monitoring
March 17	Land Use Impacts (Mining!)
March 24	City of Whitehorse Water Management Infrastructure Tour
March 31	Groundwater Quality and Treatment Membrane Filtration for Water Treatment Water Analysis and Water Quality Monitoring
April 7	Protection Zones around Water Supplies Evaluation of Risk Course Review