



Yukon Water & Wastewater Operator Program

## **YWWOP Source Water Protection and Watershed Stewardship**

### **Course Outline**

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**INSTRUCTOR:** Larry Gray

**OFFICE LOCATION:** A2303

**DATE:** Jan 03–Apr 20, 2018

**OFFICE HOURS:** Mon & Wed, 10:30am–12pm

**CLASSROOM:** A2603

**CLASS TIME:** Tues & Thurs, 10:30am–12 pm

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### **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 is offered at three levels (ENVS 227, ENVS 052 and WO CE70). The target audience includes 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.



### **Course Pre-requisites**

There are no specific pre-requisites for this course (WO CE70). However, Grade 12 (or equivalent) math skills are an asset. Math upgrades are available –contact us.

### **Continuing Education Units (CEUs)**

EOCP allocates 4.0 CEUs for this course, applicable as core on SWS, WT & WD, and applicable as related on WWT, WWC & SWWS certificates.

### **Course Topics and Learning Outcomes**

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

- Understand the scope of global water issues as well as water issues within Canada and the North
- Demonstrate an ability to apply both indigenous knowledge and western science to issues of source water protection and watershed stewardship in Yukon.
- Know and understand principles and concepts of source water protection and watershed stewardship.
- Be able to develop and evaluate basic source water protection plans.
- Demonstrate the ability to use various strategies to engage their home community in addressing local source water protection issues.

### **Delivery Method/Format**

This course is designed for distance delivery. There will be two 1 ½ hour videoconferences each week and a course website, including a discussion forum and links to other information sources.

### **Material/Handouts (supplied)**

- Text: A compendium of selected readings and on-line resources will form the text for this course.
- Reference Manual: There is no formal textbook for this course.
- EOCP Course Completion and Evaluation Form.
  - every student needs to complete and return this form for any CEU allocation



### **Course Requirements**

Attendance and participation in 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.

CEUs will be allocated based on attendance and course completion; Yukon College records will show a pass or fail result. If the participant doesn't attend the class, Yukon College records will show a "no show" result and no CEUs will be allocated.

### **Evaluation**

Participants registered in this course (WO CE70) are invited to challenge the quantifiable assessments used for the other levels (ENVS 227, ENVS 052) –on a self-assessment basis only. These include assignments, exams and a research paper, with a passing mark of 70%. If anyone fails any of these evaluations, arrangements can be made for a re-assessments.

### **Appropriate Language**

In all areas of the college environment, students are responsible for showing respect for others. Swearing, or language that is discriminatory or derogatory in relation to race, sex, ethnic background, religious beliefs, age, and physical condition is not appropriate.

### **Electronic Devices**

In order to be successful in classes and minimize distractions for others, cell phones, iPods, and other electronic devices must be turned off while students are in class. In an emergency situation, the instructor may give a student permission to use a cell phone or pager.

### **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 & Registrations web page.

### **Plagiarism**

It should be noted that plagiarism (academic dishonesty) is a serious academic offence and will result in your receiving a mark of zero on the assignment or the course. In certain cases, it can also result in dismissal from the College. Plagiarism involves representing the words of someone else as your own, without citing the



source from which the material is taken. If the words of others are directly quoted or paraphrased, they must be cited according to standard procedures. The resubmission of a paper for which you have previously received credit and the submission of the same paper for two courses also constitutes plagiarism and academic dishonesty. **Do not jeopardize your academic future with plagiarism. It is dishonest and can have serious consequences.**

### **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 College Academic Regulations (available on the Yukon College website). It is the student's responsibility to seek these accommodations. If a student requires an academic accommodation, he/she should contact the Learning Assistance Centre (LAC) at (867) 668-8785 or [lassist@yukoncollege.yk.ca](mailto:lassist@yukoncollege.yk.ca).

### **The Lorene Robertson Writing Centre**

All students are encouraged to make the Writing Centre a regular part of the writing process for coursework. The Lorene Robertson Writing Centre is staffed by helpful writing coaches from across the College and offers one-on-one appointments to students in need of writing support.

The Lorene Robertson Writing Centre can help you:

- Get started on an assignment and focus your ideas
- Outline and plan your assignment
- Write clearly, logically and effectively
- Address specific needs and writing problems
- Revise the first and final drafts of your project
- Gain confidence in your writing

For in-person appointments, the Centre coaching office is located in the Academic Support Centre in room A2302. You can also participate in coaching appointments over the phone or online. See the Academic Support Centre schedule for English and writing support times.



## **Class Outline**

<b>Date</b>	<b>Topic</b>	<b>Guest Speakers</b>
January 4	Course Introduction An Overview of Water Issues What is Source Water Protection, and why do we need it?	
January 9, 11	Indigenous Knowledge Water Protection in Story and Oral History	
January 16, 18	Hydrology	
January 23, 25	Hydrology	
January 30, Feb 1	Characterizing your Water Source	
February 6, 8	Water Management in the Final Agreements	Yukon Water Board YESAB
February 13, 15	Protection Zones around water supplies	Stephan Klump
February 20, 22	READING WEEK	NO CLASSES
February 27, March 1	Water Monitoring	Erin Light, YG
March 6, 8	Land use impacts	Lewis Rifkind. YCS
March 13, 15	City of Whitehorse Water Management Infrastructure Tour	
March 20, 22	Groundwater Quality & Treatment Membrane Filtration for Water Treatment Water Analysis & Water Quality Monitoring	Amelie Janin, YRC
March 27, 29	Groundwater Quality & Treatment Membrane Filtration for Water Treatment Water Analysis & Water Quality Monitoring	Amelie Janin, YRC
April 3, 5	Case Studies in the Yukon/Course Review	