

DIVISION OF APPLIED SCIENCE AND MANAGEMENT  
School of Science  
School of Academic & Skill Development  
January 2018



**COURSE OUTLINE**

**ENVS 050/ENVS 227**

**YUKON SOURCE WATER PROTECTION  
AND WATERSHED STEWARDSHIP**

**45 Hours  
3 credits**

PREPARED BY: Larry Gray

DATE: November 3, 2017

APPROVED BY: Margaret Dumkee

DATE:

APPROVED BY ACADEMIC COUNCIL:

RENEWED BY ACADMIC COUNCIL:

**YUKON COLLEGE**  
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Course Outline prepared by Larry Gray, January 2018

Yukon College  
P.O. Box 2799  
Whitehorse, YT  
Y1A 5K4

**DIVISION OF APPLIED SCIENCE AND MANAGEMENT**  
**Yukon Source Water Protection and Watershed Stewardship**  
**3 Credit Course**  
**Winter Semester, 2018**

**YUKON SOURCE WATER PROTECTION AND WATERSHED STEWARDSHIP**

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<b>INSTRUCTOR:</b>	Larry Gray	<b>OFFICE HOURS:</b> Monday & Wednesdays, 10:30am - 12pm
<b>OFFICE LOCATION:</b>	A2303	<b>CLASSROOM:</b> A2603
<b>E-MAIL:</b>	lgray@yukoncollege.yk.ca	<b>TIME:</b> Tues & Thurs, 10:30am - 12 pm
<b>TELEPHONE:</b>	456-8607	<b>DATES:</b> January 4 - April 25, 2018

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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 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**

There are no prerequisites for 052-level students. Pre-requisite for 227-level students is 2<sup>nd</sup> year standing for 200-level students or permission of the instructor for college prep students.

## **EQUIVALENCY/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 two 1 ½ hour videoconferences each week and a course website, including a discussion forum and links to other information sources.

## **COURSE REQUIREMENTS**

### **Attendance and Participation**

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

The coursed grade will be arrived at as follows:

<u>ENVS 052</u>		<u>ENVS 227</u>	
Participation/Assignments	30%	Participation/Assignments	20%
2 Mini Mid-term Exams	35%	2 Mini Mid-term Exams	20%
Final Exam	35%	Research Paper	35%
		Final Exam	25%
TOTAL	<hr/> 100%	TOTAL	<hr/> 100%

## REQUIRED TEXTBOOKS/MATERIALS

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

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.**

## YUKON FIRST NATIONS CORE COMPETENCY

Yukon College 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 College program, you will be required to achieve core competency in knowledge of Yukon First Nations. For details, please see [www.yukoncollege.yk.ca/yfnccr](http://www.yukoncollege.yk.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 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.

# ENVS 052/227 COURSE SYLLABUS

DATE	TOPIC	GUEST SPEAKERS
Date	Course Introduction	
January 4	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
<b>February 20, 22</b>	<b>READING WEEK</b>	<b>NO CLASSES ☹</b>
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	