Basic Small Water Systems

Course Outline

Course Description

This 4.5 day (27 hour) course is designed to prepare the participants to write their Environmental Operators Certification Program (EOCP) exam for Small Water Systems (required by Yukon Government Regulation).

The main objective of the course is to provide knowledge to operators regarding the provision of safe and reliable drinking water through the basic small water system process and appropriate water storage practices.

Course Pre-requisites

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

Participants that are rusty/uncomfortable with their math skills are advised to take 'WO 026 – Math Review for Small Water Systems and Bulk Water Delivery' prior to attending this course.

Continuing Education Units (CEUs)

This course is recognized by EOCP for 2.7 CEUs (core for SWS, BWD, WT and WD certifications, and related for WWT, WWC and SWWS certifications).

Course Duration

- 4.5 days
- 8:30 am to 4:00 pm each day, except last day from 8:30 am to 12:00 pm
- 1 hour lunch break
- morning and afternoon break (15 minutes each)

Course Topics and Learning Outcomes

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

- Understand the Yukon Drinking Water Regulations and the respective roles of Yukon Government's Environmental Health Services (EHS), the Environmental Operator Certification Program (EOCP), and the Yukon Water and Wastewater Operator Program (YWWOP) at Yukon University;
- Recognize Operator Responsibility, Negligence and Due Diligence;
- Define Source Water Hydrology;
- Perform Basic Water Operator Math Calculations;
- Describe Groundwater Well Construction;
- Explain Water Treatment Processes;
- Explain Water Distribution Processes;
- Understand Water System Support Processes;
- Understand Water System Safety Concepts;
- Demonstrate Water Quality Sampling and Testing.

Delivery Method/Format

Instructional Method	Percentage of Class Time
Hands-on/Q & A	10%
Examples/Case Study	10%
Presentation/Lecture Slides	60%
Demonstration	10%
Video/DVD	5%
Tutoring	5%

Material/Handouts (supplied)

- Student Binder: Yukon University. Basic Small Water Systems; a core – EOCP Exam Preparation– course. Whitehorse, Yukon.
- Reference Manual: Office of Water Programs, 2008. Basic Small Water Systems, a field study training program. 1st Edition. Sacramento, California.
- EOCP Course Completion and Evaluation Form.
  - every student needs to complete and return this form for any CEU allocation
- Calculators are provided but students are welcome to use their own.
  - please return

Course Requirements

Attendance and participation in class are required. It is the student's responsibility to attend all classes. CEUs will be allocated based on attendance and course completion; Yukon University records will show a pass or fail result. If the participant doesn't attend the class, Yukon University records will show a "no show" result and no CEUs will be allocated.

Evaluation

There will be a quantifiable evaluation at the end of this course with a passing mark of 70%. Please note that this evaluation is for self-assessment purpose only.

The final evaluation for this course is NOT an EOCP certification exam. To challenge a certification exam, register separately with EOCP at least 3 weeks in advance: 1-866-552-3627 or crm.eocp.ca.

Appropriate Language

In all areas of the University 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

Plagiarism is a serious academic offence. Plagiarism occurs when students present the words of someone else as their own. Plagiarism can be the deliberate use of a whole piece of another person's writing, but more frequently it occurs when students fail to acknowledge and document sources from which they have taken material. Whenever the words, research or ideas of others are directly quoted or paraphrased, they must be documented according to an accepted manuscript style (e.g., APA, CSE, MLA, etc.). Resubmitting a paper 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.

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) at LearningAssistanceCentre@yukonu.ca.

Class Outline

Monday

60 min	Introduction – Expectations
60 min	Chapter 1 – Roles and Responsibilities
75 min	Chapter 2 – Hydrology
60 min	Lunch
165 min	Chapter 3 – Water Operators Math

Tuesday

60 min	Review – Day One
90 min	Chapter 4 – Groundwater Wells
60 min	Lunch
210 min	Chapter 5 Water Treatment

Wednesday

60 min	Review – Day Two
165 min	Chapter 6 – Water Distribution
60 min	Lunch
60 min	Chapter 7 Bulk Water Delivery
75 min	Environmental Health Services Tour

Thursday

60 min	Review – Day Three
75min	Chapter 8 – Electricity and Controls
60 min	Lunch
90 min	Chapter 9 – Safety
60 min	Chapter 10 – Water Quality and Hands-On Sampling
75 min	Facility Tour

Friday

60 min	Review – Day Four
45 min	Chapter 11 - Exam Tips
60 min	Course Completion Exam