



Course Outline

Course Title	CWQA Core Service
Course Number	WXM8
Course Hours	8-20 hours

Staff Approval List

Peter Cartwright, Jason Jackson, Claude Gauthier, Ric Harry	Faculty
Anne Baliva	Coordinator/ Administrator
Kevin Wong	Executive Director

Prerequisites

Course Title	WXM0 CWQA Water Basics
Course Title	WXM1 CWQA Water Fundamentals
Course Title	WXM1-1 CWQA Water Fundamentals In- Class Session
Exam	WXM0 and WXM1 (Water basics exam and the CWT exam)

Course Description

The following document is a draft outline of a suggested standard for introductory level of training intended for personnel servicing and maintaining water treatment systems.

The students will learn the basic principles of the water system, and water quality including The Water Quality Service Technician module includes the Troubleshooting Treatment System Problem which contains activities that focus on RO, softeners, filtration, UV and chemical treatment.

Troubleshooting Treatment System Problems

The Troubleshooting Treatment System Problems covers topics related to the troubleshooting common problems related to RO, Softening, Ion Exchange, UV and Filtration equipment

Practice Troubleshooting Common RO System Problems

The Practice Troubleshooting Common RO System Problems provides opportunities to practice troubleshooting common problems you might encounter

Practice Troubleshooting Common Softener System Problems

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Practice Troubleshooting Common Backwashing Filtration System Problems

The Practice Troubleshooting Common Backwashing Filtration System Problems provides opportunities to practice troubleshooting common problems

Practice Troubleshooting Common Non-backwashing Filtration System Problems

The Practice Troubleshooting Common Non-backwashing Filtration System Problems provides opportunities to practice troubleshooting common problems

Practice Troubleshooting Common Ozone or Chemical Injection System Problems

The Practice Troubleshooting Common Ozone or Chemical Injection System Problems provides opportunities to practice troubleshooting common problems

Practice Troubleshooting Common Disinfection System Problems

The Practice Troubleshooting Common Disinfection System Problems provides opportunities to practice troubleshooting common problems you might come across in the field.

Course Learning Outlines

1	Troubleshooting Systems
2	Practice Troubleshooting Common RO System Problems
3	Practice Troubleshooting Common Softener System Problems
4	Practice Troubleshooting Common Backwashing Filtration System Problems
5	Practice Troubleshooting Common Non-backwashing Filtration System Problems
6	Practice Troubleshooting Common Ozone or Chemical Injection System Problems
7	Practice Troubleshooting Common Disinfection System Problems

Additional Learning Outcome Comments

Upon successful completion of the course the learner will be able to:

Demonstrate the ability to diagnose, analyze and evaluate problems with equipment

Demonstrate the ability to recognize and repair service issues with water treatment systems

Explain the operating application of water treatment equipment with respect in field service issues including equipment maintenance, breakdown and water chemistry changes.

Learning Resources

All additional resources within course lectures, modules and/or assignments must adhere to the Canadian Copyright Act.

The student may be required to have an approved test kit, and safety equipment for the handling of chemicals and contaminated water. Care and safety protocols should be adhered to with handling samples and chemicals.

Assessment Requirements

Note: does not need to be all

Assessment Task	% or P/F
Applied Learning	8-20 hours online learning with knowledge base reading and MEP activities
Assignments	In the MEP
In-Class activities	4 hours
Labs	In the MEP
Presentations	Na
Quizzes	In the MEP
Tests	2 hours

Prior Learning and Assessment and Recognition (PLAR)

PLAR uses tools to help learners reflect on, identify, articulate, and demonstrate past learning which has been acquired through previous training, study, work and other life experiences and which is not recognized through formal transfer of credit mechanisms.

PLAR options include authentic assessment activities designed by faculty that may include challenge exams, portfolio presentations, interviews, and written assignments. Learners may also be encouraged and supported to design an individual documentation package that would meet the learning requirements

of the course. Any student who wishes to have any prior learning acquired through life and work experience assessed, so as to translate it into course credit, may initiate the process by applying through the CWQA.

A copy of CWQA's PLAR policy is attached.

Student Success: Policies and Procedures

Mutually, faculty and learners will support and adhere to CWQA Academic Regulations, and Student Rights and Responsibilities. The following policies and guidelines have been developed to support the learning process.

Please click on the link for information about:

- Student Rights and Responsibilities
- Academic Regulations
- Guidelines for Professional Practice: Students and Instructors

Alternate accessible formats of learning resources and materials will be provided, on request. (AODA statement)

Program Standards:

The Authority Having Jurisdiction such as the Ontario Ministry of Training, Colleges and Universities oversees the development and the review of standards for regulated programs of instruction. CWQA adheres to these guidelines until such time as this program is mandated and recognized by O.MTCU. Each training delivery organization is required to ensure that its programs and program delivery are consistent with these standards, and must assist students to achieve these essential outcomes.

This course contributes to Program Standards as defined by the Alberta Safety Council and the Ontario Ministry of Training, Colleges and Universities (MTCU). Program standards apply to all similar programs of instruction offered by colleges across the province. Each program standard for a postsecondary program includes the following elements:

- Vocational standards (the vocationally specific learning outcomes which apply to the program of instruction in question);
- Essential employability skills (the essential employability skills learning outcomes which apply to all programs of instruction); and
- General education requirement (the requirement for general education in postsecondary programs of instruction that contribute to the development of citizens who are conscious of the diversity, complexity and richness of the human experience; and, the society in which they live and work).
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Collectively, these elements outline the essential skills and knowledge that a student must reliably demonstrate in order to complete the CWQA MEP program. For further information on the standards for your program, follow the MTCU link (www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/)

Essential Employability Skills

#	Description	Use (Y/N)
1	Communicate clearly	Y
2	Respond to communication	Y

3	Use mathematical operations	Y
4	Solve problems systematically	Y
5	Anticipate and solve problems	Y
6	Document information	Y
7	Analyze information	Y
8	Respect diverse opinions	N
9	Interact with groups or teams	Y
10	Manage time and resources	Y
11	Take responsibility for self	Y