



Course Outline

Course Title	CWQA Water Basics
Course Number	WXM0
Course Hours	variable

Staff Approval List

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

Course Description

The following document is a draft outline of a suggested standard for basic introductory level of training intended for personnel selling, stocking, designing or maintaining water treatment systems.

The students will learn the basic principles of the water system, and water quality including Residential Water Quality Issues, Local Effects of Water Quality, Local Effects of Hard Water, Causes of Water Quality Issues, National Drinking Water Regulations, Measuring Water Hardness, Local Water Hardness, Test for Water Hardness, Explain Water Hardness, Monitoring Drinking Water Quality, Public Water Supply, Private Water Supply Test Results, Monitoring Local Water Quality.

In the second module of the course, students will learn Benefits of Water Testing, Testing for Contaminants Impacting Health and Aesthetics, Perform a Water Test, Water Softening Benefits, Explain Water Softening Benefits, Water Softening by Ion Exchange, Water Softening Components, Examine a Water Softener System, Water Softener Customer, Misconceptions and Responsibilities, Emerging Technologies, Drinking Water Systems, How Reverse Osmosis Works, Reverse Osmosis and TDS and How Water Filtration Works

In the third module, the student will learn how to handle the customer, the CWQA Code of Ethics and the CWQA Marketing and Promotional Guidelines.

Note: The majority of the curriculum will be online via the Modular Education Program. The Practical (in class) component will include common water problems, identification of water treatment equipment and chemicals, and a course of aesthetic field testing and analysis, where the student will identify a water sample and use their test kits to diagnose what is in the water. This course will be offered after the completion of the fundamentals modules to augment the in class portion of that section.

That in-class sessions will take the identification of problem water samples, field analysis and diagnosis of the sample's chemistry, the solution development to treat the water and the design of the system.

Course Learning Outlines

1	Water Quality Basics
2	Water Diagnosis, Analysis and Treatment
3	Handling the Customer

Additional Learning Outcome Comments

Upon successful completion of the course the learner will be able to:
 Demonstrate the ability to recognize the water cycle, problem water and water chemistry concerns
 Demonstrate the ability to diagnose, analyze and evaluate problem water sources and solutions

Identify common water treatment equipment and their applications
Explain the operating application of water treatment equipment with respect to problem water chemistry.
Understand and apply the CWQA Code of Ethics, and Marketing and promotions guidelines.

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.

For the Instructor: Please refer to the Water Treatment Basics and the Field Testing and Analysis Education Standards for content, and breakdown.

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	1 hour

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).
-

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