

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**SAULT  
COLLEGE**

**COURSE OUTLINE**

**COURSE TITLE:** Drinking Water Operator-in-Training Certification  
Preparation

**CODE NO. :** OEL859

**AUTHOR:** *Subhash Verma, P. Eng.*

**DATE:** June 2016    **PREVIOUS OUTLINE DATED:** Sept 2014

**APPROVED:**

*Ted Newbery*

\_\_\_\_\_  
Chair, Continuing Education

July 2014  
DATE

**TOTAL CREDITS:** 4

**PREREQUISITE(S):** None

**COURSE HOURS:** 60

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*For additional information, please contact (705) 759-2554*

**I. COURSE DESCRIPTION:**

This course is intended to provide students with basics as related to the operation of water treatment and distribution systems. The basic concepts in science and math are discussed first. This is covered under topics including: conversions, math, chemistry, hydraulics, electricity. It will be followed by topics on support systems mainly pertaining to pumps and motors and processes in *water treatment* and *water distribution*. At the end of the course students will be fully prepared to write the OIT certification examination of the Ontario Ministry of Environment. (Director Approved CEU 6.0)

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course, the student will demonstrate the ability to:

1. Standards of measure and units conversions.
2. Explain and describe drinking water regulations.
3. Make area and volume calculations as related to water treatment and water distribution.
4. Apply the principles of hydraulics to find flow rates, pressures and pumping head and power.
5. Identify the basic principles of and recognize the importance of disinfection of water.
6. Define electrical terms: current, emf, and resistance and describe the relation between them.
7. Describe the parameters of water quality and sampling requirements for compliance and process control.
8. Describe the basic principles of safety as applied to water operations.
9. Describe the main processes and operations employed in water treatment.
10. Explain the processes and equipment employed in water distribution systems.

**III TOPICS:**

1. Units And Math
2. Basic Hydraulics
3. Electricity
4. Chemistry Basics
5. Water Quality and Sampling
6. Support Systems
7. Safety
8. Legislation
9. Water Treatment
10. Water Distribution

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

All online

**V. EVALUATION PROCESS/GRADING SYSTEM:**

Final mark in the course will be based on the following:

Term Test I	20%
Term Test II	20%
Term Test III	20%
Final Test	40%

**Note:**

- The final test will be written online in a proctored environment, preferably at your registering college or a college near your home.
- Your registering college will convert the percentage grade to the letter grad
- To be eligible to write tests, you must be posting your findings and comments related to activities suggested at the end of each lesson using the discussion link **Participation**.

**VI. SPECIAL NOTES:**

If you are a student with a disability please identify your needs to the tutor and/or the Centre for Students with Disabilities at your registering college.

Students, it is your responsibility to retain course outlines for possible future use to support applications for transfer of credit to other educational institutions.

Course outline amendments: The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources

Academic Dishonesty: Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct* (<https://my.saultcollege.ca>). Students who engage in academic dishonesty will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, discuss with your course instructor the preferred documentation format for referencing source material.