



COURSE OUTLINE: OEL870 - WATER DISTRIB 1 AND2

Prepared: Subhash Verma, P. Eng.

Approved: Lori Crosson, Director, E-Learning and Continuing Education

Course Code: Title	OEL870: WATER DISTRIBUTION CERT LEVEL 1 AND 2																								
Program Number: Name																									
Department:	DISTANCE EDUCATION																								
Semesters/Terms:	20S, 20F, 21W																								
Course Description:	This course provides basic understanding and knowledge of practices and applications relevant to sources of water supply, distribution system components, pipe network, pumping systems, water quality monitoring and water wells. Related concepts in hydraulics, equipment, safety and legislation are reinforced.																								
Total Credits:	4																								
Hours/Week:	4																								
Total Hours:	60																								
Prerequisites:	There are no pre-requisites for this course.																								
Corequisites:	There are no co-requisites for this course.																								
Course Evaluation:	Passing Grade: 50%, D																								
Books and Required Resources:	Water and Wastewater Technology by Mark J. Hammer and Hammer Junior Publisher: Prentice Hall, Edition: 7th edition ISBN: 0135114047																								
Course Outcomes and Learning Objectives:	<table><tr><td>Course Outcome 1</td><td>Learning Objectives for Course Outcome 1</td></tr><tr><td>Public health</td><td>-Understand the importance of safe drinking water and related water regulation</td></tr><tr><td>Course Outcome 2</td><td>Learning Objectives for Course Outcome 2</td></tr><tr><td>Sources of water supply</td><td>-List the main sources of water supply and characteristics as related to suitability to drinking water supplies</td></tr><tr><td>Course Outcome 3</td><td>Learning Objectives for Course Outcome 3</td></tr><tr><td>Water storage & Distribution</td><td>-Compare surface water supplies and groundwater supplies</td></tr><tr><td>Course Outcome 4</td><td>Learning Objectives for Course Outcome 4</td></tr><tr><td>Piping network</td><td>-Describe various types of intake devices for surface water sources</td></tr><tr><td>Course Outcome 5</td><td>Learning Objectives for Course Outcome 5</td></tr><tr><td>Pumping systems</td><td>-Explain the role of storage in water distribution systems and list common used storage devices</td></tr><tr><td>Course Outcome 6</td><td>Learning Objectives for Course Outcome 6</td></tr><tr><td>Hydrants, valves and fittings</td><td>-Apply the concept of pressure control within a water distribution system</td></tr></table>	Course Outcome 1	Learning Objectives for Course Outcome 1	Public health	-Understand the importance of safe drinking water and related water regulation	Course Outcome 2	Learning Objectives for Course Outcome 2	Sources of water supply	-List the main sources of water supply and characteristics as related to suitability to drinking water supplies	Course Outcome 3	Learning Objectives for Course Outcome 3	Water storage & Distribution	-Compare surface water supplies and groundwater supplies	Course Outcome 4	Learning Objectives for Course Outcome 4	Piping network	-Describe various types of intake devices for surface water sources	Course Outcome 5	Learning Objectives for Course Outcome 5	Pumping systems	-Explain the role of storage in water distribution systems and list common used storage devices	Course Outcome 6	Learning Objectives for Course Outcome 6	Hydrants, valves and fittings	-Apply the concept of pressure control within a water distribution system
Course Outcome 1	Learning Objectives for Course Outcome 1																								
Public health	-Understand the importance of safe drinking water and related water regulation																								
Course Outcome 2	Learning Objectives for Course Outcome 2																								
Sources of water supply	-List the main sources of water supply and characteristics as related to suitability to drinking water supplies																								
Course Outcome 3	Learning Objectives for Course Outcome 3																								
Water storage & Distribution	-Compare surface water supplies and groundwater supplies																								
Course Outcome 4	Learning Objectives for Course Outcome 4																								
Piping network	-Describe various types of intake devices for surface water sources																								
Course Outcome 5	Learning Objectives for Course Outcome 5																								
Pumping systems	-Explain the role of storage in water distribution systems and list common used storage devices																								
Course Outcome 6	Learning Objectives for Course Outcome 6																								
Hydrants, valves and fittings	-Apply the concept of pressure control within a water distribution system																								



SAULT COLLEGE | 443 NORTHERN AVENUE | SAULT STE. MARIE, ON P6B 4J3, CANADA | 705-759-2554

	Course Outcome 7	Learning Objectives for Course Outcome 7				
	Sampling and analysis	-Describe disinfection methods and when it may be required within a distribution system -Collect water distribution samples for monitoring and regulatory purposes				
	Course Outcome 8	Learning Objectives for Course Outcome 8				
	Water quality monitoring	-Collect water distribution samples for monitoring and regulatory purposes				
	Course Outcome 9	Learning Objectives for Course Outcome 9				
	Secondary Disinfection	-Knowledge of pipes and piping network including hydrants and fittings				
	Course Outcome 10	Learning Objectives for Course Outcome 10				
	Water Wells	-Describe types of wells, well pumps and operation of water wells				
Evaluation Process and Grading System:	<table><tr><td>Evaluation Type</td><td>Evaluation Weight</td></tr><tr><td>TESTS (3)</td><td>100%</td></tr></table>		Evaluation Type	Evaluation Weight	TESTS (3)	100%
Evaluation Type	Evaluation Weight					
TESTS (3)	100%					
Date:	March 9, 2020					
Addendum:	Please refer to the course outline addendum on the Learning Management System for further information.					

