



**Developer and Owner – WWOTC**

**Online Course – Instructor Led**

## **Wastewater Microbiology**

**August 20-21, 2024 (1:00-5:00 AST)**

### **Course Objective / Description**

In order to achieve the objectives of wastewater treatment, it is essential for plant operators to understand the biological processes and organisms involved in wastewater treatment to ensure that the presence of an adequate, active, and appropriate population of bacteria is present in each process. This course provides the basics of microbiology with an understanding of bacterial groups and key process control options to optimize the treatment process. Troubleshooting methods are highlighted with the goal of effluent optimization.

What will be covered?

- Bacterial: Characteristics, composition, structure, nutritional requirements, environmental conditions for metabolism and growth, metabolic pathways and growth patterns
- Learn the differences between pathogens and coliforms
- Bacterial groups and microorganism identification
- Bacterial sampling and observe laboratory analytical tests and techniques
- Microscope usage and slide preparation

<b>Lesson</b>	<b>Description</b>	<b>Contact Hours</b>
Day 1		
Lesson 1	Microbiology and Bacteria Overview	1.0
Lesson 2	Eukaryotic Organisms and Their Meaning	1.0
	Break	0.25
Lesson 3	Eukaryotic Organisms and Their Meaning	1.0
Lesson 4	Pathogens and Indicators	0.5
Day 2		
Lesson 5	Pathogens and Indicators	0.25
Lesson 6	Iron, Sulfur, and Nitrifying Bacteria	0.75
Lesson 7	Sampling and Laboratory Tests	1.0
	Break	0.25
Lesson 8	Microscopy and Slide Preparation	1.0
	Exam	0.5
	Total Instruction Time:	7.0

**CEU: 0.7**

# Wastewater Microbiology

August 20-21, 2024 (1:00-5:00 AST)

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Company Mailing Address \_\_\_\_\_

City, Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

ACWWA Membership #: \_\_\_\_\_ WEF Membership #: \_\_\_\_\_

If no membership number is listed, you will be invoiced as a non-member. See pricing below.

### Fee for ACWWA or WEF Members & Employees of UTILITY Members

Course: \$380.00 + \$57.00 HST (15%) = \$437.00

### Fee for Non – Members

Course: \$400.00 + \$60.00 HST (15%) = \$460.00

Invoices will be sent to the address listed above.

PO number to be included on the invoice \_\_\_\_\_

Payment can be made by Visa, Master Card or cheque.

Card Holder's Name \_\_\_\_\_

Credit Card Number \_\_\_\_\_ Expiry \_\_\_\_\_

Signature \_\_\_\_\_

Email address for credit card receipt \_\_\_\_\_

Cheques should be made payable to:

**ACWWA**

PO Box 28141 · Dartmouth, NS · B2W 6E2

Phone 902-434-6002 Fax 902-435-7796