



Developer and Owner – WWOTC

Online Course – Instructor Led

Wastewater Microbiology

November 30-December 1, 2022 (8:30 – 12:30 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

| Lesson | Description | Contact Hours |
|---------------|--|----------------------|
| 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

November 30-December 1, 2022 (8:30 – 12:30 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: \$355.00 + \$53.25 HST (15%) = \$408.25

Fee for Non – Members

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

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