



Developer and Owner - WWOTC

Online Course - Instructor Led

Understanding System Hydraulics October 28-29, 2025 (1:00 – 5:00 AST)

Course Objective / Description

The objective of this course is to better understand how distribution or collection systems work, and in order to do that, a basic understanding of hydraulics is essential. This course will allow operators to better understand how water moves through pipes and how pressure size and biofilm can affect system operations. It contains information on potential and kinetic energy within these systems, how the amount of energy at any point can be determined, and how we use that energy to distribute water. Students will also gain a clear understanding of simple math calculations as they relate to day-to-day operations.

What will be covered:

- How is pressure created in a water system
- Pressure and its affect on flow in service pipes
- Flow and its affect on pressure in pipes
- Pressure as it relates to backflow and back siphonage
- Restoring diminished flows

| Lesson | Description | Contact Hours |
|----------------|-------------------------------------|---------------|
| Lesson 1 | Introduction and Overview | 0.5 |
| Lesson 2 | How Pressure is Created | 1.0 |
| Lesson 3 | Effect of Pressure on Flows | 0.5 |
| Lesson 3 con't | Effect of Pressure on Flows | 0.75 |
| Lesson 4 | Effect of Pressure on Service Pipes | 1.0 |
| Lesson 5 | The Effect of Flow on Pressure | 1.0 |
| Lesson 6 | Backflow and Back Pressure | 0.75 |
| Lesson 7 | Restoring Flow in Watermains | 1.0 |
| | Test | 0.5 |
| | Total Instruction/Contact Time: | 7.0 |

CEU: 0.7

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| Name: | |
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| Company: | |
| Company Mailing Address | |
| City, Province: | Postal Code: |
| Phone: | Email: |
| ACWWA Membership #: If no membership number is l | WEF Membership #:isted, you will be invoiced as a non-member. See pricing below. |
| Fee for | ACWWA or WEF Members & Employees of UTILITY Members Course: \$355.00 +\$49.70 HST (14%) = \$404.70 |
| | Fee for Non – Members Course: $\frac{$380.00 + $53.20 \text{ HST } (14\%) = $433.20}{}$ |
| Invoices will be sent to the ac | ddress listed above. |
| PO number to be included o | on the invoice |
| Payment can be made by Vis | sa, Master Card or cheque. |
| Card Holder's Name | |
| Credit Card Number | Expiry |
| Signature | |
| Email address for credit card 1 | receipt |
| | Cheques should be made payable to: ACWWA |
| | PO Box 28141 · Dartmouth, NS · B2W 6E2 Phone 902-434-6002 Fax 902-435-7796 |