



Pennsylvania AWWA

American Water Works Association



○ PA-AWWA'S ON-LINE OPERATOR TRAINING ZONE

*Courses approved for water and wastewater 1 PA DEP Contact Hour each.
All other courses 1 PA DEP Contact Hour for water or wastewater operators.

Drinking Water

▪ **Hydraulics**

- Hydraulics 1 – Closed Conduit Systems *

▪ **Law, Regulations, and Acts**

- United States Water and Wastewater Utility Industry – Federal, State, and Local Control *

▪ **Management**

- Leadership and How to Affect Change in Public Organizations *
- United States Water and Wastewater Utility Industry *

▪ **Math**

- Math Class 1 *

▪ **Membrane Technology**

- Introduction to Membrane Operations for Small Utilities
- Membrane Unit Operations
- System Design and Flow Configurations for Membrane Operations
- Terms and Equations of Membrane Operations

- **Safety**

- Accident Investigation *
- Basic Safety Fundamentals for the Water & Distribution System Operator
- Confined Space Entry *
- Lock Out Tag Out – The Control of Hazardous Energy *

- **Water Analysis**

- How to Perform Total Coliform Analytical Test for Drinking Water Quality
- Introductory to the Development of a Quality Assurance/ Quality Control Plan *
- Investigating the Causes of Total Coliform Positive Samples from Drinking Water Distribution Systems

- **Water Distribution**

- Cross Connection Control
- Introduction to Distribution System Piping and Valving

- **Water Treatment**

- Drinking Water Disinfection
- Drinking Water Ion Exchange Softening
- Drinking Water Precipitation Softening
- Fundamentals of Coagulation and Flocculation
- Media Filtration for Drinking Water
- Ultraviolet Disinfection 1 – WTR

- **Wastewater**

- **Law, Regulations, and Acts**

- Pretreatment Regulations
- United States Water and Wastewater Utility Industry – Federal, State, and Local Control *

- **Management**

- Leadership and How to Affect Change in Public Organizations *
- United States Water and Wastewater Utility Industry *

- **Management and Public Relations**

- Water Quality Management

- **Math**

- Math Class 1 *

- **Safety**

- Accident Investigation *
- Blood Borne Pathogens *
- Confined Space Entry *
- Lock Out Tag Out - The Control of Hazardous Energy *

- **Wastewater Analysis**

- Biochemical Oxygen Demand and Carbonaceous Biochemical Oxygen Demand
- How To Perform Fecal Coliform Analytical Tests For Wastewater Treatment Plant Effluent
- Introduction to Development of a Quality Assurance/Quality Control Plan
- Microscopic Examination of Activated Sludge
- Oxygen Measurements
- Solids Analysis

- **Wastewater Treatment**

- Activated Sludge
- Problems Caused by Roots in Sewers *
- Trickling Filters 1
- Ultraviolet Disinfection 1 - WWTR
- Wastewater 1 Operator Study Guide
- Wastewater Treatment Theory Class 1
- Wastewater Treatment Theory Class 2