DW 103

● ● ● Advanced 45 hours 3 modules · 21 lessons

Laboratory, Operations & Safety

Sampling and lab analysis, pumps and hydraulics, equipment O&M, and the safety, security and emergency-response skills that protect people and the public.

45	3	21	1,332	105	9	1,166
HOURS OF TRAINING	MODULES	LESSONS	STUDY CARDS	SCENARIOS	3D SIMULATORS	EXAM QUESTIONS

COURSE OBJECTIVES

By the end of this course you will be able to:

1. Collect, preserve and analyze compliance samples with correct bottles, preservatives and holding times.
2. Run QA/QC, interpret results and prepare monthly operating reports.
3. Calculate lead and copper 90th percentile and understand action-level logic (verify current rules).
4. Compute total dynamic head, power and pump efficiency and read pump curves.
5. Operate and maintain pumps, valves, chemical feed systems and SCADA alarms.
6. Respond to chlorine releases, confined-space entries and other emergencies using ICS concepts.
7. Apply security and emergency-response planning at a utility.

WHAT YOU WILL LEARN

Sampling & laboratory
Bottles, preservation, holding time, bench methods and QC.

Compliance monitoring
Lead/copper, coliform, turbidity, residuals and reports.

Pumps & hydraulics
TDH, HGL, power and water hammer.

Equipment O&M
PM, lubrication, valves and metering pumps.

Safety & confined space
Atmospheric testing, permits, PPE and rescue.

Security & emergencies
Chlorine response, ICS, notification and recovery.

MAJOR TOPICS COVERED

Module 7	Laboratory Analysis & Water Quality Monitoring	7 lessons
Module 8	Equipment Operation & Maintenance, Pumps & Hydraulics	7 lessons
Module 9	Safety, Security & Emergency Response	7 lessons

COURSE HIGHLIGHTS

- **45 hours** of structured, self-paced instruction with active-time tracking.
- **9 interactive 3D simulators** — rotate, explode and cut away real equipment, then change the controls and watch the numbers respond.
- **105 field scenarios** with background, decision points and worked answers.
- **1,332 study cards**, 21 printable checklists and hands-on calculators.
- **1,166 practice questions** with timed, exam-style mock tests.

WHO IT'S FOR

Operators preparing for higher classes and plant leaders responsible for compliance monitoring, equipment and safety programs.

BEFORE YOU START

DW 101 and DW 102 recommended.

WHERE TO NEXT

Mock exams and license-class review in the Exam prep area.

Start learning Create a free account at tryetech.com, open **Drinking Water (Waterworks) Operator Prep** and begin with Module 7.