



PROCESS AND CHEMICAL ENGINEERING

Potable Water Treatment Plant Operations

5 day course

Classroom, online or in-house

Course overview

A treatment works producing water that meets the standard on a good day is not the same as one that holds the standard through a turbidity spike, a power interruption and a coagulant delivery that failed to arrive. This course prepares operators for the second. Delegates work through raw water sources and how catchment conditions change what arrives at the intake, then through coagulation and flocculation including jar testing and adjusting dose to raw water rather than to habit. Clarification and the sludge blanket are covered. Filtration follows, including filter run length, backwash and the signs that a filter is failing. Disinfection is addressed with contact time, residual and the relationship between them. Chemical dosing, storage and handling are covered. Process monitoring and the operator decisions that keep quality inside limits follow. The course closes on running through upsets, outages and shortages without leaving specification.

What you will learn

- Relate catchment conditions to what arrives at the intake
- Set coagulant dose from jar testing rather than from habit
- Operate clarification and manage the sludge blanket
- Run filters, judge run length and backwash correctly
- Achieve disinfection through contact time and residual control
- Dose, store and handle treatment chemicals safely
- Hold specification through upsets, outages and chemical shortages

Who should attend

- Water treatment plant operators and shift supervisors
- Process controllers at municipal waterworks
- Water quality officers
- Utility engineers responsible for treatment assets
- Technicians moving into treatment plant operation

Course outline

- 01 Meeting the standard on a bad day
- 02 Raw water sources and catchment effects
- 03 Coagulation, flocculation and jar testing
- 04 Clarification and the sludge blanket
- 05 Filtration, run length and backwash
- 06 Disinfection, contact time and residual
- 07 Chemical dosing, storage and handling
- 08 Monitoring, upsets, outages and shortages

Upcoming dates



Dates	Venue	Format	Fee per delegate
28 September to 2 October 2026	Maseru, Lesotho	Classroom	R19,950
12 to 16 October 2026	Durban, South Africa	Classroom	R19,950
14 to 18 December 2026	Accra, Ghana	Classroom	USD 1,325
21 to 25 December 2026	Johannesburg, South Africa	Classroom	R19,950

Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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