Water Industry and Utility Fundamentals Training Course

30 May – 3 June 2027
Johannesburg

AGILE LEADERS
Training Center

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Ref: 1547_214233 **Date:** 30 May – 3 June 2027 **Location:** Johannesburg **Fees:** 4500 Euro

Overview

The Water Industry and Utility Fundamentals Training Course is a one-week course for utility professionals, infrastructure managers, operations coordinators, environmental and quality staff, finance and customer-service teams, and public-service leaders who leave with a Water Utility Fundamentals and Improvement File. Participants connect water resources, drinking-water and wastewater value chains, assets, operations, quality, resilience, finance, customers, and performance without undertaking detailed engineering design. Agile Leaders Training Center presents water-industry fundamentals through utility-wide tools.

Who Should Attend

- Water utility professionals coordinating service delivery and operations
- Infrastructure managers overseeing assets, maintenance, and renewal
- Operations coordinators connecting treatment, networks, and field teams
- Environmental and quality staff supporting monitoring and controls
- Finance and customer-service teams linking revenue with service performance
- Public-service leaders governing utility priorities and resilience

The course assumes participants work in infrastructure, utilities, public services, or related support functions and leaves detailed engineering design and laboratory certification outside scope.

Departments and Industries

The course supports departments and industries across drinking-water, wastewater, environmental, infrastructure, and public-service systems.

- Drinking-water utilities and treatment operations
- Wastewater collection, treatment, and reuse services
- Municipal infrastructure and public works departments
- Environmental monitoring and public-health functions
- Engineering, construction, and asset-management organizations
- Utility finance, customer, and digital service teams

Learning Objectives

By the end of this course, participants will be able to:

- Analyze the water-industry value chain and stakeholder system
- Compare drinking-water and wastewater process interfaces
- Apply asset, operations, quality, and safety control concepts
- Evaluate service, customer, financial, and environmental indicators
- Prioritize resilience, maintenance, and water-loss improvement needs
- Build a cross-functional utility improvement brief

Course Agenda

Day 1: Sector, Resources, and Value Chains

- Water Cycle and Resource Context Map
- Water Sector Stakeholder and Governance Map
- Drinking-Water Service Value Chain
- Wastewater and Reuse Pathway
- Utility Roles and Responsibility Matrix

Day 2: Treatment, Networks, and Operations

- Drinking-Water Treatment Process Interface Map
- Distribution Network Asset Hierarchy
- Wastewater Collection and Treatment Interface
- Operations and Maintenance Workflow
- Metering and Non-Revenue-Water Loss Tree

Day 3: Quality, Safety, and Resilience

- Water Safety Plan Control Overview
- Operational and Verification Monitoring Matrix
- Environmental Control and Discharge Map
- Worker and Public Safety Interface Review
- Climate Risk and Service Resilience Register

Day 4: Customers, Finance, and Performance

- Customer Service Journey Map
- Tariff and Cost-Recovery Concept Model
- Utility Revenue and Collection Flow
- Water Utility Performance Indicator Dashboard
- Digital Monitoring and Decision-Support Map

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Day 5: Water Utility Practice

- Suggested Exercise: Sector and Value-Chain Mapping
- Suggested Exercise: Asset and Water-Loss Review
- Suggested Exercise: Safety and Resilience Risk Assessment
- Suggested Exercise: Utility Performance Dashboard Review
- Capstone Exercise: Water Utility Fundamentals and Improvement File

Practical Exercises

The course uses suggested activities drawn from water-supply, wastewater, municipal, and utility-management settings.

- Suggested activity: map a source-to-customer water service and its stakeholder responsibilities.
- Suggested activity: classify utility assets and identify maintenance and water-loss priorities.
- Suggested activity: connect water-quality controls with operational and verification monitoring.
- Suggested activity: evaluate service, customer, finance, and resilience indicators for an improvement brief.

FAQs

Who is the water industry fundamentals course designed for, and what does it assume?

The course suits technical and nontechnical utility, infrastructure, environment, finance, customer, and public-service professionals. It assumes sector involvement and excludes detailed engineering design.

How does water industry fundamentals training differ from water engineering design training?

Water industry fundamentals training connects systems, operations, assets, quality, customers, finance, and governance; engineering design training develops calculations and specifications for physical infrastructure and processes.

What does a water utility value chain include?

A water utility value chain can include resource planning, abstraction, treatment, storage, transmission, distribution, metering, customer service, wastewater collection, treatment, discharge or reuse, and enabling governance and finance.

Why is non-revenue water important to water utilities?

Non-revenue water represents water produced but not billed because of physical losses, commercial losses, or authorized unbilled use. It affects operating efficiency, resource use, revenue, and investment capacity.

How are water utility performance and resilience monitored?

Utilities use indicators for coverage, continuity, quality, losses, asset reliability, customer response, cost recovery, collections, safety, and resilience, supported by defined data ownership and review routines.

Conclusion

Participants take back a Water Utility Fundamentals and Improvement File containing value-chain, stakeholder, asset, quality, loss, customer, finance, performance, and resilience tools. The file creates a shared operating view across functions. It helps teams connect service outcomes with practical improvement priorities.