



Oil, Gas and Chemical

Advanced Water Treatment Technology

Course Introduction

This training course concentrates on waste water treatment and water treatment in municipal plants to address the quantity, complexity and diversity of the developments in the wastewater treatment profession.

This course topics include an introduction to water technology, the process for treating wastewater with emphasis on past, present and future technologies concerned with water treatment. The course also covers water quality characteristics, sampling and laboratory analysis procedures from source to distribution. It also will help you develop the skills necessary to evaluate the technologies used in water treatment.

Target Audience

- Process design
- Unit Operator
- Environmental
- Process safety engineer
- Gasoline blender engineer
- Lab supervisor
- Supply chain engineer
- Distillates analyst
- Models engineer
- Chemical Operator
- Chemical Plant Operator
- Chemical Process Technician
- Control Room Supervisor
- Gas Plant Process Operator
- Gas Production Operator
- Gas Terminal Operations and Storage
- Gathering Pipeline engineer
- Oil Terminal / Storage engineer
- Pipeline Maintenance / Equipment / Compliance / Repair

- Pipeline Testing / Technician / Supervisor / Safety
- Plant Equipment Operator
- Plant Operations Technician
- Plant Shutdown
- Plant Supervisor
- Power Distribution
- Power Plant Manager
- Process Supervisor
- Refinery Operations Technician / Manager
- Terminal Operator / Manager
- Utilities Operator

Learning Objectives

- This course aims at providing participants with thorough understanding of all methods and techniques of industrial and wastewater treatment.

Course Outline

- **01 Day One**

Water Composition and Specifications

- Water resources
- Basic composition and properties
- Dissolved oxygen
- PH, hardness
- Suspended solids and colloids
- Metallic ions
- Organic matter
- Living organisms

- Chemical and biological oxygen demand

• 02 Day Two

Physical Treatment Processes

- Sedimentation and flocculation
- Flotation
- Filtration
- Mechanical dewatering
- Centrifuge and sludge handling
- Adsorption ion exchange
- Membranes separation
- Case study (I)

• 03 Day Three

Chemical Treatment

- Chemical dosing
- Oxidation / reduction
- Neutralization
- Precipitation
- Incineration
- Sterilization
- Case study (II)

• 04 Day Four

Biological Treatment

- Aerobic Towers
- Activated sludge
- Lagoons Anaerobic
- Bacteriological analysis
- Potable water specification
- Sampling, measurement and analysis
- Analytical, and sampling, methods

• 05 Day Five

Industrial Water Management

- Supply steams
- Cooling water system
- Waste streams
- Mass balance of water and contaminants
- Practical application

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
June 16, 2025	June 20, 2025	5 days	4250.00 \$	UAE - Dubai
Aug. 11, 2025	Aug. 15, 2025	5 days	4950.00 \$	Italy - Milan
Oct. 6, 2025	Oct. 10, 2025	5 days	4250.00 \$	UAE - Dubai
Dec. 7, 2025	Dec. 11, 2025	5 days	4250.00 \$	UAE - Abu Dhabi
Dec. 30, 2024	Jan. 3, 2025	5 days	4250.00 \$	UAE - Abu Dhabi