



## أنظمة تنقية المياه بتقنية الأسموز المعكوس المتقدمة

**Duration:** 5 Days

**Language:** ar

**Course Code:** IND04 - 129

### Objective

:Upon completion of this course, participants will be able to

- Gain a thorough understanding of the principles and applications of Reverse Osmosis.
  - Develop the skills to monitor, troubleshoot, and maintain RO systems efficiently.
  - Learn to optimise RO plant performance to reduce operational costs and enhance water quality.
  - Understand safety and regulatory requirements pertinent to RO systems.

### Audience

:This course is intended for

- Engineers responsible for the design and operation of Reverse Osmosis systems.
  - Technicians involved in the maintenance and troubleshooting of RO systems.
    - Environmental consultants working in water treatment technologies.
    - Plant managers overseeing the operation and performance of RO plants.
  - Professionals seeking to deepen their knowledge in water purification and improve operational efficiency.

## Training Methodology

The course combines theoretical instruction with practical, hands-on sessions. Participants will engage in interactive workshops, real-world case studies, and group discussions, supported by expert-led lectures. This approach ensures that attendees understand the concepts and acquire the practical skills needed for immediate application in their professional roles.

## Summary

This advanced course offers a comprehensive exploration into the complexities of Reverse Osmosis (RO) systems, emphasising their critical role in water purification across industries. Participants will gain deep insights into RO plants' principles, configurations, and maintenance practices, enabling them to optimise operations, troubleshoot issues effectively, and ensure these systems' long-term efficiency and reliability.

## Course Content & Outline

### Section 1: Understanding RO Systems

- Fundamentals of Osmosis and Reverse Osmosis
- Membrane Configurations and Selection Criteria
- Water Sources and Quality Impact on RO Systems

### Section 2: RO System Design and Components

- Detailed Exploration of RO Plant Configurations
- Pretreatment and Post-Treatment Processes
- System Layout and Key Equipment

### Section 3: Operation and Maintenance

- Start-up, Shutdown, and Daily Operation Protocols
  - Preventive Maintenance Strategies
- Membrane Cleaning and Replacement Techniques

### Section 4: Troubleshooting and Performance Optimisation

- Identifying and Addressing Common RO Issues
- Performance Monitoring and Data Analysis
- Advanced Troubleshooting Techniques

### Section 5: Safety and Regulatory Compliance

- Safety Protocols in RO Plant Operation
- Regulatory Standards and Environmental Considerations
  - Case Studies and Best Practices

## Certificate Description

عند إتمام هذه الدورة التدريبية بنجاح، سيحصل المشاركون على شهادة إتمام التدريب من Holistique Training. وبالنسبة للذين يحضرون ويكملون الدورة التدريبية عبر الإنترنت، سيتم تزويدهم بشهادة إلكترونية (e-Certificate) من Holistique Training.

وخدمة اعتماد التطوير المهني (BAC) معتمدة من المجلس البريطاني للتقييم Holistique Training تقدم شهادات ISO 29993 أو ISO 21001 أو ISO 9001 كما أنها معتمدة وفق معايير CPD المستمرة.

لهذه الدورة من خلال شهادتنا، وستظهر هذه النقاط على شهادة إتمام (CPD) يتم منح نقاط التطوير المهني المستمر واحدة عن كل ساعة CPD يتم منح نقطة CPD ووفقاً لمعايير خدمة اعتماد Holistique Training التدريب من الأداء واحد نقدمها حالياً CPD حضور في الدورة. ويمكن المطالبة بحد أقصى قدره 50 نقطة.

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