

TRAINING TITLE

FIELD CORROSION CONTROL

Training Duration

5 days

Training Venue and Dates

ME351	Field Corrosion Control	5	15-19 Dec 2025	\$5,500	ABU DHABI, UAE
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In any of the 4 or 5-star hotels. The exact venue will be informed later.

Training Fees

- **\$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch**

Training Certificate

Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.

TRAINING DESCRIPTION

This course focuses on the principles, techniques, and best practices for controlling corrosion in the field, with particular emphasis on the oil and gas industry. Participants will learn about the causes of corrosion, methods of corrosion prevention, and the management of corrosion in pipelines, storage tanks, offshore structures, and other critical equipment. The course covers both the theoretical aspects of corrosion and practical solutions for controlling it, ensuring the longevity and safe operation of assets in corrosive environments.

TRAINING OBJECTIVES

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

- Understand the causes and mechanisms of corrosion in oil and gas environments.
- Learn about different types of corrosion and how they affect materials and equipment.
- Explore various corrosion control techniques, including coatings, inhibitors, and cathodic protection.
- Gain practical knowledge on inspecting and monitoring corrosion in the field.
- Develop strategies for managing corrosion-related risks and improving asset integrity.

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WHO SHOULD ATTEND?

- Engineers and technicians involved in corrosion management, materials selection, and asset integrity in the oil and gas industry.
- Maintenance and operations personnel responsible for ensuring the durability and safety of equipment and pipelines.
- Safety officers and corrosion specialists seeking to expand their knowledge of corrosion control methods.
- Professionals in the petrochemical, offshore, and industrial sectors who deal with corrosion in harsh environments.

TRAINING METHODOLOGY

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work & Practical Exercises
- 20% Videos & General Discussions

COURSE PROGRAM:

Day 1: Introduction to Corrosion in Oil and Gas Field Operations

- Overview of corrosion: Definition, types, and impacts on assets.
- Corrosion mechanisms: Electrochemical, chemical, and microbiological corrosion.
- Factors influencing corrosion: Environmental, material properties, and operating conditions.
- Corrosion in oil and gas facilities: Pipelines, tanks, offshore structures, and process equipment.
- Introduction to corrosion monitoring and prevention methods.

Day 2: Types of Corrosion and Their Impact on Equipment

- Uniform corrosion: Causes and impact on pipelines and vessels.
- Pitting corrosion: Detection and mitigation techniques.

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- Stress corrosion cracking (SCC) and hydrogen embrittlement.
- Galvanic corrosion and corrosion due to dissimilar metals.
- Microbiologically influenced corrosion (MIC) and its role in field operations.

Day 3: Corrosion Control Techniques

- Coatings and linings: Types, application methods, and maintenance.
- Corrosion inhibitors: Chemical treatments and injection methods.
- Cathodic protection: Types (sacrificial anodes and impressed current systems), installation, and maintenance.
- Material selection: Choosing corrosion-resistant materials and alloys for specific environments.
- Design strategies to minimize corrosion risk: Proper welding, joint design, and corrosion-resistant coatings.

Day 4: Inspection, Monitoring, and Detection of Corrosion

- Corrosion monitoring techniques: Visual inspection, ultrasonic testing, and eddy current testing.
- Non-destructive testing (NDT) methods for corrosion detection.
- Corrosion management systems: Planning, data collection, and risk assessment.
- Monitoring pipeline integrity and offshore structures for corrosion.
- Tools for real-time corrosion monitoring and corrosion mapping.

Day 5: Corrosion Risk Management and Case Studies

- Developing a corrosion management strategy: Risk-based approach to asset integrity.
- Corrosion monitoring programs: Setting up effective inspection schedules and maintenance plans.
- Cost-effective corrosion control: Balancing prevention, maintenance, and replacement costs.
- Best practices for preventing and managing corrosion in the field.

NOTE:

Pre-& Post Tests will be conducted.

Case Studies, Group Exercises, Group Discussions, Last Day reviews, and assessments will be carried out.

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