



OIL AND GAS | OG-031

Corrosion Management in Oil and Gas Facilities

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Course content

Why Attend

Corrosion is one of the leading causes of failures, leaks and unplanned shutdowns in oil and gas facilities. It affects pipelines, vessels, piping, tanks and offshore structures, with serious consequences for safety, environment and production.

This Aractech course provides a comprehensive understanding of corrosion mechanisms in oil and gas environments and the methods used to control them, including material selection, coatings, cathodic protection, chemical inhibition, monitoring and inspection. Participants learn how to build and manage a corrosion management system that integrates risk assessment, mitigation, monitoring and continuous improvement.

Course Methodology

- Technical presentations with real failure examples
- Corrosion mechanism analysis exercises
- Mitigation selection workshops
- Monitoring data interpretation
- Corrosion management system design

Course Objectives

- Explain corrosion mechanisms common in oil and gas operations
- Identify corrosion threats such as CO₂, H₂S, microbial and erosion corrosion
- Select materials and protective coatings appropriately
- Apply cathodic protection and chemical inhibition
- Plan corrosion monitoring and inspection programmes
- Establish a corrosion management system and KPIs

Course content

Target Audience

- Corrosion and materials engineers
- Integrity and inspection engineers
- Maintenance and operations engineers
- Production chemists

Course outline

Detailed course outline

Day-by-day outline for Corrosion Management in Oil and Gas Facilities.

Day 1 - Corrosion Fundamentals

- 09:00-09:39 | Electrochemistry of corrosion
- 09:39-10:18 | Forms of corrosion
- 10:18-10:57 | Factors affecting corrosion rates
- 10:57-11:00 | Cost and consequences of corrosion
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Cost and consequences of corrosion (continued)
- 12:05-12:43 | Corrosion in the oil and gas value chain
- 12:43-14:00 | Exercise: Identifying corrosion forms in case images

Day 2 - Corrosion Threats in Oil and Gas

- 09:00-09:39 | CO₂ and H₂S corrosion
- 09:39-10:18 | Microbiologically influenced corrosion
- 10:18-10:57 | Erosion and erosion-corrosion
- 10:57-11:00 | Under-deposit and under-insulation corrosion
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Under-deposit and under-insulation corrosion (continued)
- 12:05-12:43 | Stress corrosion cracking
- 12:43-14:00 | Case study: A pipeline corrosion failure

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Day 3 - Prevention and Mitigation

- 09:00-09:34 | Material selection and corrosion allowance
- 09:34-10:08 | Protective coatings and linings
- 10:08-10:42 | Cathodic protection principles
- 10:42-11:00 | Corrosion inhibitors and chemical treatment
- 11:00-11:30 | Coffee break
- 11:30-11:46 | Corrosion inhibitors and chemical treatment (continued)
- 11:46-12:53 | Design for corrosion control
- 12:53-14:00 | Workshop: Selecting mitigation for a facility

Day 4 - Monitoring and Inspection

- 09:00-09:39 | Corrosion monitoring techniques
- 09:39-10:18 | Inspection methods and frequencies
- 10:18-10:57 | Risk-based inspection
- 10:57-11:00 | Data management and trending
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Data management and trending (continued)
- 12:05-12:43 | Remaining life assessment
- 12:43-14:00 | Exercise: Interpreting monitoring data

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Day 5 - Corrosion Management Systems

- 09:00-09:45 | Elements of a corrosion management system
- 09:45-10:30 | Roles and responsibilities
- 10:30-11:00 | KPIs and reporting
- 11:00-11:30 | Coffee break
- 11:30-11:45 | KPIs and reporting (continued)
- 11:45-12:30 | Integration with asset integrity management
- 12:30-13:15 | Continuous improvement
- 13:15-14:00 | Capstone: Corrosion management plan

Seminar dates

Available seminar dates

Live dates and pricing for Corrosion Management in Oil and Gas Facilities generated from the course details page.

Date	Location	Format	Fee
2 - 6 November 2026	London	Classroom	€2,315
21 - 25 December 2026	Istanbul	Classroom	€1,978
18 - 22 January 2027	Rome	Classroom	€3,460
15 - 19 February 2027	Kuala Lumpur	Classroom	€1,925
15 - 19 March 2027	Barcelona	Classroom	€2,815
19 - 23 April 2027	London	Classroom	€2,315
17 - 21 May 2027	Munich	Classroom	€3,225
21 - 25 June 2027	Amsterdam	Classroom	€2,830
19 - 23 July 2027	London	Classroom	€2,315
16 - 20 August 2027	Istanbul	Classroom	€1,978

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Date	Location	Format	Fee
20 - 24 September 2027	Rome	Classroom	€3,460
18 - 22 October 2027	Kuala lumpur	Classroom	€1,925
15 - 19 November 2027	Barcelona	Classroom	€2,815
20 - 24 December 2027	London	Classroom	€2,315
2 - 6 November 2026	Online / Live	Online / Live	€1,815
21 - 25 December 2026	Online / Live	Online / Live	€1,815
18 - 22 January 2027	Online / Live	Online / Live	€1,815
15 - 19 February 2027	Online / Live	Online / Live	€1,815
15 - 19 March 2027	Online / Live	Online / Live	€1,815
19 - 23 April 2027	Online / Live	Online / Live	€1,815

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21 - 25 June 2027	Online / Live	Online / Live	€1,815
19 - 23 July 2027	Online / Live	Online / Live	€1,815
16 - 20 August 2027	Online / Live	Online / Live	€1,815
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