



aractech

Global Learning for Operational Leaders

CONSTRUCTION MANAGEMENT

Metallurgy, Corrosion & Prevention of Failures Material

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Course content

Why Attend

Course Introduction

Metallurgy, material selection, and corrosion management are crucial areas of expertise across various industries, especially in sectors like oil and gas production where materials face extreme operating conditions.

Course Methodology

Course Objectives

Target Audience

Course outline

Detailed course outline

Day-by-day outline for Metallurgy, Corrosion & Prevention of Failures Material.

Day 1 - Introduction to Metallurgy and Material Selection

- Introduction to Metallurgy
- Classification of Steels and Heat Treatment
- Crystal Structure and Phase Diagrams
- Mechanical Metallurgy
- Destructive Testing

Day 2 - Materials and Metallurgy in Oil & Gas Industry

- Mechanical Properties and Characteristics of Metals
- Design Basis for Hydrocarbon Systems
- Selection of Materials for Oil & Gas Production
- Substitute Materials

Day 3 - Welding Metallurgy and Corrosion

- Fundamentals of Welding Metallurgy
- Weld Solidification and Microstructure
- Welding Processes and Techniques
- Weld Overlay and Corrosion Prevention

Course outline

Detailed course outline

Day-by-day outline for Metallurgy, Corrosion & Prevention of Failures Material.

Day 4 - Corrosion Phenomena and Prevention

- Connection of Dissimilar Materials
- Sealing Materials
- Forms of Corrosion
- Common Corrosion Phenomena in Oil & Gas Industries
- Case Studies of Corrosion Failures

Day 5 - Non-Destructive Examinations and Conclusion

- Glossary and Quality Control in NDT
- Standards for NDT and Welding Inspections
- Non-Destructive Examination Techniques
- Course Conclusion and Feedback

Seminar dates

Available seminar dates

Live dates and pricing for Metallurgy, Corrosion & Prevention of Failures Material generated from the course details page.

Date	Location	Format	Fee
15 - 19 June 2026	Kuala Lumpur	Classroom	€1,575
20 - 24 July 2026	London	Classroom	€2,940
3 - 7 August 2026	Rome	Classroom	€2,975
7 - 11 September 2026	Munich	Classroom	€2,415
12 - 16 October 2026	Amsterdam	Classroom	€2,975
9 - 13 November 2026	London	Classroom	€2,940
14 - 18 December 2026	Istanbul	Classroom	€1,995

Live online option

Online delivery is available at €1,250.