

FIXED EQUIPMENT INTEGRITY AND FITNESS-FOR-SERVICE

Start Date:	30/11/2026	End Date:	04/12/2026
Categories:	Engineering & Maintenance	Venues:	Barcelona
Formats:	In Person	Instructors:	

OVERVIEW

This course provides practical knowledge on assessing the integrity and serviceability of fixed equipment in oil & gas, focusing on degradation mechanisms, inspection practices, and fitness-for-service evaluations per API 579.

OBJECTIVES

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

- Identify common degradation mechanisms in fixed equipment.
- Conduct inspection planning and apply NDT methods effectively.
- Perform fitness-for-service assessments per API 579.
- Evaluate repair or replacement decisions based on asset condition.
- Enhance operational safety and minimize equipment failure risks.

COURSE OUTLINE

1. Degradation Mechanisms and Risk Factors
2. Inspection Planning, NDT Techniques and Intervals
3. Fitness-for-Service Framework (API 579)
4. Case-Based FFS Level 1 & Level 2 Assessments
5. Repair, Replacement, and Life Extension Strategies

TARGET AUDIENCE

Inspection engineers, plant integrity teams, reliability professionals, and maintenance managers involved in fixed equipment evaluations.

METHODOLOGY

API-based analysis, case exercises, inspection walkthroughs, and evaluation templates.

CONCLUSION

Participants will return equipped with technical strategies for evaluating and managing the fitness-for-service of fixed assets in complex operating environments.

DAILY AGENDA

Day 1: Fixed Equipment Integrity Overview

Types of degradation, corrosion loops, and integrity principles.

Day 2: NDT and Inspection Strategies

Planning and executing visual, UT, PT, and RT inspections.

Day 3: Fitness-for-Service (API 579)

FFS levels, component assessment methods, and API workflow.

Day 4: Case Study Applications

Practical FFS examples and run-repair-replace decision making.

Day 5: Life Extension & Repair Planning

Documentation, repair criteria, and post-repair evaluations.

Page 2 of 3

For more information, please contact us:

Email: info@gatewayconsulting.com | Phone: +96522968641

<https://gatewayconsulting.com>