



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

API 579 Fitness-for-Service

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0423 · NQF Level 5 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips engineers and inspection personnel with the knowledge and skills to apply API 579 Fitness-for-Service (FFS) assessment methodologies to in-service equipment. Participants will learn to evaluate flaws and damage mechanisms, determine remaining life, and make run-repair-replace decisions that ensure safety and reliability while optimizing operational costs.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0423
Accreditation	SAQA Accredited · NQF Level 5 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply the API 579 FFS assessment procedures to identify and categorize damage mechanisms and flaws.
- Analyze the fitness-for-service of components using Level 1, Level 2, and Level 3 assessment methods.
- Evaluate the remaining strength and remaining life of equipment using appropriate assessment techniques.
- Design a risk-based inspection and maintenance plan based on FFS assessment results.
- Demonstrate the ability to document and report FFS assessments in accordance with API 579 standards.
- Implement FFS assessments to support run-repair-replace decisions and regulatory compliance.

WHO SHOULD ATTEND

- Engineers, integrity specialists, inspectors, and maintenance managers involved in the assessment and management of pressure equipment, piping systems, and storage tanks in the oil, gas, petrochemical, and power generation industries.

COURSE OUTLINE

Day 1: Introduction to Fitness-for-Service and API 579

- Overview of FFS and its role in asset integrity management
- Introduction to API 579 and its relationship with other codes (e.g., ASME B31.3, ASME Section VIII)
- FFS assessment levels (Level 1, 2, 3) and when to use each
- Damage mechanisms covered by API 579 (e.g., metal loss, cracking, distortion)
- Data requirements for FFS assessments (inspection data, material properties, operating conditions)
- Introduction to remaining strength factor (RSF) and its calculation
- Worked examples of simple Level 1 assessments

Day 2: Assessment of Specific Damage Mechanisms

- Assessment of generalized metal loss (Part 4)
- Assessment of localized metal loss (Part 5)
- Assessment of pitting corrosion (Part 6)
- Assessment of blisters and hydrogen-induced damage (Part 7)
- Assessment of crack-like flaws (Part 9) – FAD and KIC approaches
- Assessment of fire damage (Part 11)
- Introduction to remaining life calculations and run-repair-replace decisions
- Case studies demonstrating the application of each procedure

Day 3: Advanced Applications, Documentation, and Integration

- Advanced considerations: multiple damage mechanisms, interaction effects, and limitations
- Remaining life assessment and interval determination
- FFS and its integration with RBI (API 580/581) and plant integrity management
- Documentation requirements for FFS assessments
- Reporting and communication of results to stakeholders
- Review of case studies and group discussion
- Final assessment and wrap-up

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **6 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 13,900.00	R 13,900.00
1	In-House	R 18,100.00	R 18,100.00
1	On-Campus (Pretoria)	R 20,800.00	R 20,800.00

UPCOMING SESSIONS

Start	End	Method	Venue
30 Sep 2026	02 Oct 2026	In-House	—
30 Sep 2026	02 Oct 2026	On-Campus	Victoria Falls, Zimbabwe
05 Oct 2026	07 Oct 2026	On-Campus	Nairobi, Kenya
05 Oct 2026	07 Oct 2026	On-Campus	Lusaka, Zambia
06 Oct 2026	08 Oct 2026	On-Campus	Kigali, Rwanda
06 Oct 2026	08 Oct 2026	On-Campus	Windhoek, Namibia
06 Oct 2026	08 Oct 2026	On-Campus	Bangkok, Thailand
07 Oct 2026	09 Oct 2026	Online	—

Contact us if no suitable date is listed — on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard AATICD-0423) and click **Get A Quote / Apply**. Select your training method and number of delegates — your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za — our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call **+27 12 004 8389** or WhatsApp **+27 65 077 6310** and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically — the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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