



## Accredited Africa Training Institute for Capacity Development

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

Tel: +27 12 004 8389 · Mobile: +27 65 077 6310

Email: [apply@aatikd.co.za](mailto:apply@aatikd.co.za) · Website: [www.aatikd.co.za](http://www.aatikd.co.za)

### COURSE BROCHURE

# Corrosion Management in Oil & Gas

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0424 · NQF Level 5 · 6 Credits · 3 Days

## COURSE OVERVIEW

This course equips learners with the knowledge and skills to effectively manage corrosion in oil and gas facilities, ensuring asset integrity, safety, and operational efficiency. Participants will understand corrosion mechanisms, assessment techniques, and mitigation strategies, and apply them to real-world scenarios.

|                 |                                           |
|-----------------|-------------------------------------------|
| Category        | Custom Courses                            |
| Subfield        | Energy, Oil and Gas                       |
| Unit Standard   | AATICD-0424                               |
| 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 fundamental principles of corrosion science to identify and classify corrosion types in oil and gas environments.
- Analyze corrosion risk factors and evaluate the effectiveness of corrosion management systems.
- Design corrosion monitoring programs and select appropriate inspection techniques for different assets.
- Implement corrosion mitigation strategies including materials selection, coatings, cathodic protection, and chemical inhibition.
- Demonstrate compliance with relevant South African and international standards and regulations in corrosion management.
- Evaluate corrosion-related failures and recommend corrective actions to prevent recurrence.

## WHO SHOULD ATTEND

- This course is designed for engineers, technicians, maintenance planners, and operations personnel working in the oil and gas industry who are responsible for asset integrity and corrosion control.

## COURSE OUTLINE

### Day 1: Fundamentals of Corrosion and Its Impact

- Introduction to corrosion: definition, costs, and safety implications
- Electrochemical basics: anodes, cathodes, electrolytes, and current flow
- Common corrosion types: uniform, pitting, galvanic, crevice, and erosion-corrosion
- Environmental factors: CO<sub>2</sub>, H<sub>2</sub>S, chlorides, and oxygen
- Overview of corrosion in oil and gas: from wellhead to refinery
- Regulatory and standards landscape (e.g., NACE, ISO)

### Day 2: Corrosion Control Methods and Materials

- Materials selection: carbon steel, stainless steels, and corrosion-resistant alloys
- Protective coatings: types, application, and inspection
- Cathodic protection: design, installation, and monitoring
- Corrosion inhibitors: mechanisms, selection, and injection systems
- Corrosion monitoring techniques: coupons, probes, and non-destructive testing
- Case studies of corrosion failures and mitigation in oil and gas

### Day 3: Corrosion Management and Integrity Planning

- Corrosion management systems: policy, organization, and processes
- Risk-based inspection (RBI): principles and implementation
- Corrosion loop diagrams and criticality assessment
- Data management and trending for proactive decision-making
- Integrity management standards (e.g., API 570, API 580)
- Emergency response and contingency planning for corrosion-related failures

## 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 | On-Campus | Maseru, Lesotho   |
| 30 Sep 2026 | 02 Oct 2026 | On-Campus | London, UK        |
| 05 Oct 2026 | 07 Oct 2026 | On-Campus | Mbabane, Eswatini |
| 05 Oct 2026 | 07 Oct 2026 | Online    | —                 |
| 06 Oct 2026 | 08 Oct 2026 | On-Campus | Nairobi, Kenya    |
| 06 Oct 2026 | 08 Oct 2026 | On-Campus | Lusaka, Zambia    |
| 07 Oct 2026 | 09 Oct 2026 | On-Campus | Bangkok, Thailand |
| 07 Oct 2026 | 09 Oct 2026 | On-Campus | Windhoek, Namibia |

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](http://www.aaticd.co.za), open the page for this course (Unit Standard AATICD-0424) 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](mailto: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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