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

# Non-Destructive Testing

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0430 · NQF Level 5 · 4 Credits · 2 Days

## COURSE OVERVIEW

This course equips participants with the fundamental principles and practical skills required to perform non-destructive testing (NDT) in industrial settings. It covers the most common NDT methods, their applications, and the interpretation of test results to ensure material integrity and safety without causing damage. The course emphasizes compliance with relevant standards and safety protocols, enabling participants to contribute effectively to quality assurance processes.

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|---|---|
| Category | Custom Courses |
| Subfield | Energy, Oil and Gas |
| Unit Standard | AATICD-0430 |
| Accreditation | SAQA Accredited · NQF Level 5 · 4 Credits |
| Duration | 2 days |
| Training Method | Online, On-Campus, In-House |
| Certificate | Issued via AATICD LMS — verifiable online |

## LEARNING OUTCOMES

- Apply the principles and procedures of the major non-destructive testing methods (e.g., ultrasonic, radiographic, magnetic particle, liquid penetrant, eddy current).
- Analyze test results and identify discontinuities or defects in materials and components.
- Evaluate the suitability of different NDT methods for specific materials, geometries, and inspection conditions.
- Implement NDT procedures in accordance with relevant industry standards and safety regulations.
- Demonstrate the correct use of NDT equipment and interpret calibration and reference standards.
- Design a basic inspection plan for a given component or structure, considering the selection of method, equipment, and acceptance criteria.

## WHO SHOULD ATTEND

- This course is designed for technicians, inspectors, engineers, and quality assurance personnel involved in manufacturing, construction, maintenance, and asset integrity management.
- It is also suitable for individuals seeking to enter the NDT field or expand their skill set.

## COURSE OUTLINE

Day 1: **Principles and Methods of Non-Destructive Testing**

- Introduction to NDT: definition, purpose, and benefits
- Overview of NDT methods: visual testing, penetrant testing, magnetic particle testing, radiographic testing, ultrasonic testing, eddy current testing
- Principles of visual testing and use of borescopes
- Principles of liquid penetrant testing and its steps
- Principles of magnetic particle testing and magnetization techniques
- Principles of radiographic testing and safety aspects
- Principles of ultrasonic testing and wave propagation
- Principles of eddy current testing and applications

Day 2: **Advanced Applications, Interpretation, and Certification**

- Advanced techniques: phased array ultrasonic testing, time-of-flight diffraction, digital radiography
- Selection of appropriate NDT methods based on material, defect type, and accessibility
- Interpretation of indications and evaluation against acceptance criteria
- Relevant standards and codes (e.g., ISO, ASME, SANS
- NDT personnel certification: levels, training, and responsibilities
- Safety and environmental considerations in NDT
- Case studies of NDT in aerospace, petrochemical, and construction industries
- Emerging trends in NDT

## 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 **4 NQF credits** at **NQF Level 5**.

## PRICING (PER DELEGATE, EX-VAT)

| Delegates | Training Method | Price per Delegate | Total |
|---|---|---|---|
| 1 | Online | R 11,900.00 | **R 11,900.00** |
| 1 | In-House | R 16,100.00 | **R 16,100.00** |
| 1 | On-Campus (Pretoria) | R 17,800.00 | **R 17,800.00** |

## UPCOMING SESSIONS

| Start | End | Method | Venue |
|---|---|---|---|
| 01 Dec 2026 | 02 Dec 2026 | On-Campus | Dubai, UAE |
| 02 Dec 2026 | 03 Dec 2026 | On-Campus | Victoria Falls, Zimbabwe |
| 02 Dec 2026 | 03 Dec 2026 | On-Campus | Cape Town, South Africa |
| 03 Dec 2026 | 04 Dec 2026 | On-Campus | Shenzhen, China |
| 03 Dec 2026 | 04 Dec 2026 | On-Campus | Lagos, Nigeria |
| 09 Dec 2026 | 10 Dec 2026 | On-Campus | Maseru, Lesotho |
| 09 Dec 2026 | 10 Dec 2026 | On-Campus | Kigali, Rwanda |
| 09 Dec 2026 | 10 Dec 2026 | On-Campus | Accra, Ghana |

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

## HOW TO GET A QUOTATION OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard AATICD-0430) and click **Get A Quotation**. 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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