



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@aaticd.co.za · Website: www.aaticd.co.za

COURSE BROCHURE

Medium High Voltage Transformer Inspection Testing Maintenance Training

Physical Planning and Construction / Electrical Infrastructure Construction

Unit Standard 113880 · NQF Level 4 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to safely inspect, test, and maintain medium high voltage transformers in accordance with industry standards. It covers theoretical principles, practical procedures, and safety protocols essential for reliable transformer operation. Learners will be able to identify faults, perform routine tests, and implement maintenance strategies to extend transformer life.

Category	Physical Planning and Construction
Subfield	Electrical Infrastructure Construction
Unit Standard	113880
Accreditation	SAQA Accredited · NQF Level 4 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply safety procedures and regulations relevant to medium high voltage transformer work.
- Demonstrate the ability to perform visual inspections and identify common transformer defects.
- Conduct electrical tests including insulation resistance, winding resistance, and turns ratio measurements.
- Analyze test results to assess transformer condition and recommend corrective actions.
- Implement routine and preventive maintenance procedures for transformers.
- Evaluate transformer oil quality and interpret dissolved gas analysis results.

WHO SHOULD ATTEND

- This course is designed for electrical technicians, maintenance engineers, and plant operators responsible for the inspection, testing, and maintenance of medium high voltage transformers in industrial or utility settings.

COURSE OUTLINE

Day 1: Fundamentals of Medium High Voltage Transformers

- Introduction to medium high voltage transformers (11kV-33kV)
- Transformer construction: core, windings, tap changers, bushings, cooling systems
- Operating principles: voltage transformation, impedance, efficiency
- Safety: lockout/tagout, earthing, PPE, working at heights
- Failure modes: insulation breakdown, overheating, partial discharge
- Relevant standards: SANS, IEC, OHS Act

Day 2: Inspection and Testing Techniques

- Visual inspection: oil leaks, corrosion, bushing condition
- Thermographic inspection: hot spots, load imbalances
- Insulation resistance testing (Megger)
- Winding resistance measurement
- Turns ratio test (TTR)
- Oil sampling and dissolved gas analysis (DGA) basics
- Interpreting test results and trending
- Condition-based maintenance planning

Day 3: Maintenance, Fault Finding, and Practical Integration

- Routine maintenance: oil filtration, gasket replacement, tap changer servicing
- Fault finding: symptoms of internal faults, using test equipment
- Emergency procedures: responding to transformer failures
- Maintenance scheduling and record keeping
- Case studies of transformer failures
- Practical integration: hands-on testing and inspection

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 4**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 17,900.00	R 17,900.00
1	In-House	R 23,300.00	R 23,300.00
1	On-Campus (Pretoria)	R 26,800.00	R 26,800.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	12 Aug 2026	On-Campus	Pretoria, South Africa
10 Aug 2026	12 Aug 2026	On-Campus	Mauritius
11 Aug 2026	13 Aug 2026	On-Campus	Abu Dhabi, UAE
11 Aug 2026	13 Aug 2026	On-Campus	Cape Town, South Africa
12 Aug 2026	14 Aug 2026	On-Campus	Durban, South Africa
12 Aug 2026	14 Aug 2026	On-Campus	Dubai, UAE
17 Aug 2026	19 Aug 2026	On-Campus	Harare, Zimbabwe
17 Aug 2026	19 Aug 2026	On-Campus	Abu Dhabi, UAE

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 113880) 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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