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
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COURSE BROCHURE

Oil & Gas Instrumentation and Control

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0437 · NQF Level 5 · 4 Credits · 2 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to install, calibrate, and maintain instrumentation and control systems used in the oil and gas industry. It covers the principles of measurement, control loops, safety systems, and relevant regulations, enabling participants to ensure safe and efficient operations.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0437
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 of measurement and control to oil and gas processes.
- Analyze the operation of various instruments used for pressure, temperature, flow, and level measurement.
- Design and implement calibration procedures for instrumentation and control systems.
- Demonstrate the ability to troubleshoot and maintain control loops and safety systems.
- Evaluate the impact of hazardous environments on instrumentation and control equipment.
- Implement relevant safety regulations and standards in instrumentation and control practices.

WHO SHOULD ATTEND

- This course is designed for technicians, engineers, and supervisors working in oil and gas facilities who are responsible for the operation, maintenance, or management of instrumentation and control systems.

COURSE OUTLINE

Day 1: **Fundamentals of Instrumentation and Control**

- Overview of oil and gas processes and instrumentation needs
- Process variables: pressure, temperature, flow, level
- Measurement principles and sensor technologies
- Transmitters, actuators, and control valves
- Introduction to control loops and PID control
- Instrumentation symbols and P&IDs;
- Safety standards (SANS, IEC) and hazardous area classifications
- Calibration and documentation basics

Day 2: **Advanced Control Systems and Practical Integration**

- DCS and PLC architectures and functions
- SCADA systems and remote monitoring
- Advanced control strategies (cascade, feedforward, ratio
- Troubleshooting techniques for field instruments
- Safety Instrumented Systems (SIS) and Safety Integrity Levels (SIL
- Emergency shutdown (ESD) and fire and gas systems
- Loop checking, commissioning, and startup procedures
- Case studies of instrumentation failures and solutions

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	Victoria Falls, Zimbabwe
01 Dec 2026	02 Dec 2026	On-Campus	Cape Town, South Africa
02 Dec 2026	03 Dec 2026	On-Campus	Shenzhen, China
02 Dec 2026	03 Dec 2026	On-Campus	Lagos, Nigeria
03 Dec 2026	04 Dec 2026	On-Campus	Durban, South Africa
08 Dec 2026	09 Dec 2026	On-Campus	Maseru, Lesotho
08 Dec 2026	09 Dec 2026	On-Campus	Kigali, Rwanda
08 Dec 2026	09 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-0437) 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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