



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

Gas Auto Analyser For Analysing Evolved Gas Concentration Training

Manufacturing, Engineering and Technology / Fabrication and Extraction

Unit Standard 110116 · NQF Level 3 · 5 Credits · 2 Days

COURSE OVERVIEW

This course provides learners with the knowledge and practical skills to operate a gas auto analyser for measuring evolved gas concentrations in industrial or laboratory settings. It covers calibration, sampling, data interpretation, and safety protocols to ensure accurate and reliable analysis of gas emissions.

Category	Manufacturing, Engineering and Technology
Subfield	Fabrication and Extraction
Unit Standard	110116
Accreditation	SAQA Accredited · NQF Level 3 · 5 Credits
Duration	2 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate the correct setup and calibration of a gas auto analyser for evolved gas concentration measurement.
- Apply sampling techniques to collect representative gas samples from various sources.
- Analyze evolved gas concentration data to identify deviations from permissible limits.
- Evaluate instrument performance and troubleshoot common operational issues.
- Implement safety procedures for handling gas samples and operating the analyser.
- Interpret results in accordance with relevant South African standards and regulations.

WHO SHOULD ATTEND

- Technicians, laboratory analysts, and safety officers responsible for monitoring gas emissions in mining, chemical, or environmental sectors.

COURSE OUTLINE

Day 1: Fundamentals of Gas Auto Analysers and Evolved Gas Analysis

- Introduction to evolved gas analysis: principles and applications
- Overview of gas auto analyser types (e.g., TGA-MS, TGA-FTIR, gas chromatographs)
- Key components: sample inlet, detectors (TCD, FID, MS), data system
- Calibration methods: zero and span calibration, use of standard gases
- Quality control: system suitability tests, blanks, and duplicates
- Safety considerations: gas handling, ventilation, and emergency procedures
- Data interpretation basics: peak identification and concentration calculation
- Maintenance fundamentals: routine checks and troubleshooting

Day 2: Advanced Operation and Practical Integration

- Advanced calibration: multi-point calibration and validation using certified reference materials
- Data analysis techniques: integration methods, baseline correction, and quantification
- Troubleshooting common issues: drift, noise, and interference
- Application case studies: evolved gas analysis in materials science, combustion, and environmental monitoring
- Data reporting: generating reports, compliance with standards (ISO, ASTM)
- Routine maintenance: cleaning, leak testing, column conditioning
- Performance verification: using check standards and control charts
- Best practices for long-term instrument stability and accuracy

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 **5 NQF credits** at **NQF Level 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 15,400.00	R 15,400.00
1	In-House	R 20,000.00	R 20,000.00
1	On-Campus (Pretoria)	R 23,100.00	R 23,100.00

UPCOMING SESSIONS

Start	End	Method	Venue
03 Aug 2026	04 Aug 2026	On-Campus	Mauritius
04 Aug 2026	05 Aug 2026	On-Campus	Pretoria, South Africa
04 Aug 2026	05 Aug 2026	On-Campus	Johannesburg, South Africa
05 Aug 2026	06 Aug 2026	On-Campus	Dubai, UAE
05 Aug 2026	06 Aug 2026	On-Campus	Lagos, Nigeria
06 Aug 2026	07 Aug 2026	On-Campus	Cape Town, South Africa
10 Aug 2026	11 Aug 2026	On-Campus	Pretoria, South Africa
11 Aug 2026	12 Aug 2026	On-Campus	Dubai, 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 110116) 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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