



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

Fuel quality control

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0278 · NQF Level 5 · 10 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to monitor and control fuel quality in storage and dispensing systems. It covers sampling, testing, and corrective actions to ensure compliance with industry standards and prevent contamination.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0278
Accreditation	SAQA Accredited · NQF Level 5 · 10 Credits
Duration	5 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply standard sampling procedures to obtain representative fuel samples from storage tanks and dispensing points.
- Analyze fuel samples using field test kits and laboratory equipment to determine key quality parameters such as density, flash point, and water content.
- Evaluate test results against national fuel specifications and identify deviations or contamination.
- Implement corrective actions, including filtration, blending, or segregation, to restore fuel quality.
- Demonstrate proper record-keeping and reporting of quality control data in accordance with company and regulatory requirements.
- Comply with health, safety, and environmental procedures during fuel handling and testing activities.

WHO SHOULD ATTEND

- This course is designed for fuel depot operators, quality control technicians, and laboratory assistants involved in fuel handling and testing within the petroleum industry.

COURSE OUTLINE

Day 1: Introduction to Fuel Quality and Regulatory Framework

- Overview of fuel types: petrol, diesel, biofuels, and additives
- South African fuel quality legislation and standards (SANS 342, SANS 1518)
- Quality control in the fuel supply chain: refinery to retail
- Key fuel properties: octane number, cetane number, volatility, sulfur content
- Introduction to sampling and testing procedures
- Quality management systems (ISO 9001, ISO 17025)

Day 2: Fuel Sampling and Laboratory Testing Methods

- Sampling equipment and procedures (ASTM D4057, D4177)
- Safety precautions during sampling and handling
- Laboratory tests: density, distillation, flash point, viscosity
- Sulfur content analysis (ASTM D5453)
- Water and sediment determination
- Oxidation stability and corrosion tests
- Recording and reporting test results

Day 3: Fuel Additives and Blending Quality Control

- Types of fuel additives: detergents, antioxidants, lubricity improvers
- Additive dosing systems and verification
- Blending methods: in-line, batch, and splash blending
- Quality control tests for blended fuels
- Troubleshooting blending problems
- Introduction to statistical process control (SPC) charts

Day 4: Fuel Storage, Handling, and Distribution Quality Assurance

- Storage tank design and maintenance
- Fuel degradation: oxidation, microbial growth, water ingress
- Tank cleaning and inspection procedures
- Pipeline and road tanker quality assurance
- Dispensing system checks and filter maintenance
- Traceability and documentation
- Incident response for fuel quality issues

Day 5: Advanced Quality Control, Auditing, and Practical Integration

- Root cause analysis techniques (5 Whys, fishbone diagram)
- Internal auditing principles (ISO 19011)
- Corrective and preventive actions (CAPA)
- Case studies of fuel quality incidents
- Fuel quality management system documentation
- Continuous improvement strategies
- Review and assessment

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 **10 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 24,200.00	R 24,200.00
1	In-House	R 31,400.00	R 31,400.00
1	On-Campus (Pretoria)	R 36,200.00	R 36,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	14 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE
17 Aug 2026	21 Aug 2026	On-Campus	Harare, Zimbabwe
17 Aug 2026	21 Aug 2026	On-Campus	Shenzhen, China
24 Aug 2026	28 Aug 2026	On-Campus	Bangkok, Thailand
24 Aug 2026	28 Aug 2026	On-Campus	Victoria Falls, Zimbabwe
31 Aug 2026	04 Sep 2026	On-Campus	Lusaka, Zambia
31 Aug 2026	04 Sep 2026	On-Campus	London, UK

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 AATICD-0278) 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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