



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

Petroleum Equipment Maintenance

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0156 · NQF Level 5 · 10 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills required to perform maintenance on petroleum equipment in compliance with industry standards and safety regulations. Participants will learn to inspect, diagnose, and repair equipment used in the petroleum industry, ensuring operational efficiency and safety.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0156
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 safety procedures and regulations when maintaining petroleum equipment.
- Inspect and diagnose faults in petroleum equipment using appropriate tools and techniques.
- Perform routine maintenance and repairs on pumps, valves, and pipelines.
- Demonstrate proper handling and disposal of hazardous materials.
- Implement preventive maintenance schedules to minimize downtime.
- Evaluate equipment performance and recommend improvements.

WHO SHOULD ATTEND

- This course is designed for maintenance technicians, engineers, and supervisors working in petroleum refineries, fuel depots, or related industrial settings who are responsible for equipment upkeep and safety.

COURSE OUTLINE

Day 1: Introduction to Petroleum Equipment and Safety

- Overview of petroleum equipment: pumps, valves, compressors, tanks, pipelines
- Safety regulations and standards in the petroleum industry
- Hazard identification: fire, explosion, toxic exposure, mechanical hazards
- Personal protective equipment (PPE) requirements
- Lockout/tagout (LOTO) procedures
- Introduction to preventive maintenance concepts
- Equipment documentation and manuals

Day 2: Mechanical Maintenance of Rotating Equipment

- Types of pumps: centrifugal, positive displacement
- Compressor types and applications
- Lubrication systems and best practices
- Bearing types, installation, and maintenance
- Mechanical seals: installation and troubleshooting
- Vibration analysis basics
- Alignment and balancing procedures
- Common failure modes and corrective actions

Day 3: Maintenance of Valves, Piping, and Static Equipment

- Valve types: gate, globe, ball, butterfly, check, relief
- Valve packing and seat repair
- Piping systems: materials, supports, and corrosion protection
- Flange and gasket installation
- Non-destructive testing: visual, ultrasonic, magnetic particle
- Storage tank maintenance: cleaning, inspection, cathodic protection
- Pressure vessel inspection and safety

Day 4: Electrical and Instrumentation Maintenance

- Hazardous area classification and intrinsic safety
- Electric motors: types, maintenance, and troubleshooting
- Motor starters and VFDs
- Instrumentation: transmitters, controllers, actuators
- Calibration procedures for pressure, temperature, level, flow
- Electrical schematics and loop diagrams
- Troubleshooting common electrical faults

Day 5: Advanced Maintenance Strategies and Integrated Practical

- Condition monitoring: vibration analysis, thermography, oil analysis
- Computerized Maintenance Management Systems (CMMS)
- Root cause analysis (RCA) methodology
- Spare parts management and inventory control
- Integrated practical: full maintenance cycle on a pump system
- Review and final 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-0156) 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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