



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

Drilling Technology

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0390 · NQF Level 5 · 4 Credits · 2 Days

COURSE OVERVIEW

This course equips learners with the fundamental knowledge and practical skills required to safely and efficiently operate drilling equipment in various geological and construction contexts. It covers drilling principles, equipment selection, operational procedures, and safety protocols, ensuring that participants can contribute to effective and safe drilling operations.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0390
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 drilling principles and techniques to select appropriate drilling methods for different ground conditions.
- Demonstrate the correct setup, operation, and maintenance of drilling equipment in accordance with manufacturer specifications and safety standards.
- Analyze drilling data and operational parameters to optimize drilling performance and troubleshoot common issues.
- Evaluate and apply safety regulations and environmental best practices to drilling operations.
- Implement effective communication and teamwork strategies to ensure safe and efficient drilling operations.
- Design a basic drilling plan for a given scenario, including equipment selection, safety measures, and operational sequence.

WHO SHOULD ATTEND

- This course is designed for individuals entering the drilling industry, including drilling assistants, operators, and technicians, as well as those seeking to formalize their practical experience with recognized training.

COURSE OUTLINE

Day 1: Drilling Fundamentals and Equipment

- Introduction to drilling technology: historical development and current trends
- Rotary drilling principles: bit rotation, weight on bit, and circulation
- Drilling rig components: derrick, drawworks, rotary table, mud pumps, and blowout preventer
- Drilling fluids: functions, types (water-based, oil-based, synthetic), and additives
- Drilling methods: rotary, percussive, and reverse circulation
- Geological considerations: rock types, formations, and drilling challenges
- Safety in drilling operations: personal protective equipment, hazard identification, and emergency procedures

Day 2: Drilling Operations, Optimization, and Practical Application

- Drilling program design: well planning, casing design, and cementing
- Drill bits: types, selection criteria, and performance evaluation
- Drilling parameters: weight on bit, rotary speed, and mud properties, and their effects
- Drilling problems: lost circulation, stuck pipe, kick, and blowout; prevention and mitigation
- Well control: principles, equipment, and procedures
- Environmental management: waste disposal, spill prevention, and regulatory compliance
- Emerging technologies: automated drilling, real-time monitoring, and data analytics
- Review and assessment of key concepts

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 15,400.00	R 15,400.00
1	On-Campus (Pretoria)	R 17,800.00	R 17,800.00

UPCOMING SESSIONS

Start	End	Method	Venue
30 Sep 2026	01 Oct 2026	On-Campus	Maseru, Lesotho
30 Sep 2026	01 Oct 2026	On-Campus	Victoria Falls, Zimbabwe
01 Oct 2026	02 Oct 2026	In-House	—
01 Oct 2026	02 Oct 2026	On-Campus	Shenzhen, China
05 Oct 2026	06 Oct 2026	On-Campus	Nairobi, Kenya
05 Oct 2026	06 Oct 2026	On-Campus	Bangkok, Thailand
06 Oct 2026	07 Oct 2026	On-Campus	Windhoek, Namibia
07 Oct 2026	08 Oct 2026	Online	—

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-0390) 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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