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

Oil & Gas Exploration

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0376 · NQF Level 5 · 4 Credits · 2 Days

COURSE OVERVIEW

This course equips learners with foundational knowledge and practical skills for safe and efficient oil and gas exploration operations. It covers exploration methods, safety protocols, and environmental considerations, preparing participants to contribute effectively to exploration projects.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0376
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 fundamental principles of oil and gas exploration, including geological and geophysical survey techniques.
- Analyze exploration data to identify potential hydrocarbon reservoirs and assess their viability.
- Evaluate environmental and safety risks associated with exploration activities and propose mitigation measures.
- Demonstrate understanding of drilling operations and well completion processes in exploration.
- Implement basic project management and teamwork skills in exploration project contexts.
- Interpret relevant legislation and industry standards governing oil and gas exploration in South Africa.

WHO SHOULD ATTEND

- This course is designed for entry-level professionals, technicians, and supervisors entering the oil and gas industry, as well as those seeking to formalize their knowledge in exploration processes.

COURSE OUTLINE

Day 1: **Foundations of Oil & Gas Exploration**

- Introduction to oil & gas exploration: history, global context, and value chain.
- Earth's structure and plate tectonics: basins, traps, and seals.
- Source rocks, maturation, migration, and accumulation of hydrocarbons.
- Exploration phases: basin analysis, prospect generation, and drilling.
- Surface exploration methods: geological mapping, geochemical surveys, and remote sensing.
- Subsurface exploration: seismic reflection and refraction, gravity, and magnetic surveys.
- Well logging and core analysis: data acquisition and interpretation.
- Environmental impact assessment and regulatory compliance (e.g., NEMA, MPRDA).

Day 2: **Advanced Exploration Techniques & Practical Integration**

- Advanced seismic attributes: amplitude vs offset (AVO), inversion, and 3D visualization.
- Reservoir characterization: petrophysics, geostatistics, and reservoir modeling.
- Prospect evaluation: risking, uncertainty analysis, and portfolio management.
- Play-based exploration: regional assessment and play fairway mapping.
- Economics of exploration: cost estimation, net present value (NPV), and decision trees.
- Data integration and management: GIS, databases, and collaboration tools.
- Case studies of successful and failed exploration projects in Africa and globally.
- Emerging technologies: machine learning, artificial intelligence, and big data in exploration.

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	Shenzhen, China
01 Dec 2026	02 Dec 2026	On-Campus	Lagos, Nigeria
02 Dec 2026	03 Dec 2026	On-Campus	Durban, South Africa
03 Dec 2026	04 Dec 2026	On-Campus	Dubai, UAE
07 Dec 2026	08 Dec 2026	On-Campus	Maseru, Lesotho
07 Dec 2026	08 Dec 2026	On-Campus	Kigali, Rwanda
07 Dec 2026	08 Dec 2026	On-Campus	Accra, Ghana
07 Dec 2026	08 Dec 2026	On-Campus	Cape Town, South Africa

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-0376) 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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