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

Geothermal Energy

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0487 · NQF Level 5 · 4 Credits · 2 Days

COURSE OVERVIEW

This course provides a comprehensive introduction to geothermal energy, covering its principles, technologies, and applications. Participants will gain the knowledge and skills needed to evaluate geothermal resources, assess project feasibility, and understand the environmental and economic impacts of geothermal energy systems.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0487
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 the fundamental principles of geothermal energy, including heat transfer and geological processes.
- Analyze the different types of geothermal resources and their potential for energy production.
- Evaluate the technical and economic feasibility of geothermal energy projects.
- Design a basic geothermal energy system, including resource assessment and plant configuration.
- Implement environmental and safety measures in geothermal energy operations.
- Demonstrate understanding of the regulatory framework and policy landscape for geothermal energy in South Africa.

WHO SHOULD ATTEND

- This course is designed for energy professionals, engineers, project managers, and sustainability consultants seeking to expand their expertise in renewable energy, specifically geothermal energy.

COURSE OUTLINE

Day 1: Geothermal Energy Fundamentals and Resource Assessment

- Introduction to geothermal energy: heat from the Earth's core.
- Geological settings: volcanic, tectonic, and hot dry rock systems.
- Geothermal resource types: hydrothermal, enhanced geothermal systems (EGS), and direct use.
- Exploration techniques: geological, geochemical, and geophysical surveys.
- Resource assessment: temperature, permeability, and fluid content.
- Environmental considerations: land use, water usage, and emissions.
- Sustainability and reservoir management.
- Overview of geothermal projects in Africa and South Africa.

Day 2: Geothermal Technology, Applications, and Project Implementation

- Geothermal power plants: dry steam, flash steam, and binary cycle.
- Direct use applications: heating, cooling, and industrial processes.
- Geothermal heat pumps and their efficiency.
- Project lifecycle: exploration, drilling, reservoir testing, and plant construction.
- Economic analysis: capital costs, operational costs, and levelized cost of electricity.
- Regulatory framework: licensing, environmental impact assessment, and compliance.
- Risk management in geothermal projects.
- Case studies: successful geothermal projects and lessons learned.

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	Durban, South Africa
02 Dec 2026	03 Dec 2026	On-Campus	Dubai, UAE
03 Dec 2026	04 Dec 2026	On-Campus	Victoria Falls, Zimbabwe
03 Dec 2026	04 Dec 2026	On-Campus	Cape Town, South Africa
10 Dec 2026	11 Dec 2026	On-Campus	Maseru, Lesotho
10 Dec 2026	11 Dec 2026	On-Campus	Kigali, Rwanda
10 Dec 2026	11 Dec 2026	On-Campus	Accra, Ghana
10 Dec 2026	11 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-0487) 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.

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 · WhatsApp: +27 65 077 6310 · apply@aaticd.co.za · www.aaticd.co.za