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

Power Generation

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0500 · NQF Level 5 · 4 Credits · 2 Days

COURSE OVERVIEW

This course equips learners with the fundamental knowledge and practical skills required to operate and maintain power generation systems safely and efficiently. It covers the principles of electricity generation, various power sources, and the critical safety and regulatory requirements applicable in the South African context.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0500
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 electricity generation to various power generation systems.
- Analyze the operational characteristics and efficiency of different power generation technologies.
- Evaluate the safety and environmental risks associated with power generation and implement mitigation measures.
- Demonstrate the correct procedures for starting, operating, and shutting down power generation equipment.
- Implement routine maintenance schedules and troubleshooting procedures to ensure reliable operation.
- Interpret and apply relevant South African regulations and standards governing power generation.

WHO SHOULD ATTEND

- This course is designed for technicians, operators, and maintenance personnel who are responsible for the operation, maintenance, or supervision of power generation equipment and systems.

COURSE OUTLINE

Day 1: Foundations of Power Generation

- Overview of electricity generation and energy sources
- Thermal power plants: steam cycle, gas turbines, combined cycle
- Hydroelectric power: principles, types, and components
- Renewable energy: solar PV, wind, and basics of integration
- Grid connection and power transmission basics
- Safety standards and environmental regulations
- Introduction to power plant efficiency and capacity factors

Day 2: Advanced Systems and Practical Integration

- Power plant operation: control systems, monitoring, and automation
- Performance analysis: heat rate, availability, and efficiency
- Maintenance strategies: preventive, predictive, and corrective
- Troubleshooting common generation faults
- Grid integration: frequency control, voltage regulation, and load dispatch
- Hybrid systems and energy storage integration
- Emerging trends: smart grids and digitalization in power generation

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-0500) 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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