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

Waste-to-Energy

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0491 · NQF Level 5 · 4 Credits · 2 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to understand and implement waste-to-energy technologies within a South African context. It focuses on the principles of converting waste into usable energy, the associated environmental and safety considerations, and the regulatory framework governing such processes.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0491
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 waste-to-energy conversion to identify suitable waste streams and technologies.
- Analyze the environmental, economic, and social impacts of various waste-to-energy options.
- Evaluate the health and safety risks associated with waste-to-energy facilities and propose mitigation measures.
- Design a basic waste-to-energy system layout, considering operational efficiency and compliance.
- Implement waste-to-energy strategies in accordance with South African legislation and international best practices.
- Demonstrate the ability to communicate technical information about waste-to-energy to diverse stakeholders.

WHO SHOULD ATTEND

- This course is designed for professionals involved in waste management, environmental health and safety, facility management, and sustainability roles within corporate and municipal settings.

COURSE OUTLINE

Day 1: Foundations of Waste-to-Energy

- Overview of waste management hierarchy and the place of WtE.
- Types of waste streams suitable for energy recovery.
- Thermal conversion technologies: incineration, gasification, and pyrolysis.
- Biological conversion technologies: anaerobic digestion and landfill gas capture.
- Emerging technologies: plasma arc, hydrothermal carbonization.
- South African legislative and policy landscape (NEMWA, NEMA, carbon tax).
- Environmental impact assessment and public participation.
- Case studies of WtE projects in South Africa and globally.

Day 2: Advanced Applications and Implementation

- Energy recovery efficiency and output optimization.
- Emissions control technologies and air quality management.
- Residue management: ash handling and utilization.
- Operational health and safety in WtE plants.
- Financial modelling and risk assessment for WtE projects.
- Public-private partnerships and community engagement.
- Integration of WtE with renewable energy systems.
- Future trends: hydrogen from waste, carbon capture, and utilization.

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-0491) 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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