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

Green Hydrogen

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0540 · NQF Level 5 · 6 Credits · 3 Days

COURSE OVERVIEW

This course provides a comprehensive introduction to green hydrogen, covering its production, storage, distribution, and applications. Participants will gain the knowledge needed to evaluate the potential of green hydrogen in the context of South Africa's energy transition and to contribute to sustainable energy projects.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0540
Accreditation	SAQA Accredited · NQF Level 5 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS — verifiable online

LEARNING OUTCOMES

- Explain the principles of green hydrogen production, including electrolysis and renewable energy sources.
- Analyze the value chain of green hydrogen, from production to end-use, and identify key stakeholders.
- Evaluate the economic, environmental, and social impacts of green hydrogen projects.
- Apply safety and regulatory frameworks relevant to hydrogen production and handling.
- Design a basic green hydrogen project plan for a specific application.
- Demonstrate an understanding of the global and South African green hydrogen landscape.

WHO SHOULD ATTEND

- Professionals in the energy sector, engineers, project managers, policymakers, and individuals interested in sustainable energy solutions.

COURSE OUTLINE

Day 1: **Green Hydrogen Fundamentals and Production Pathways**

- Introduction to hydrogen as an energy carrier
- Colour spectrum of hydrogen: green, blue, grey
- Global and South African green hydrogen initiatives
- Overview of electrolysis: PEM, alkaline, and solid oxide
- Feedstock requirements: water quality and electricity source
- System components: electrolyser, power supply, water treatment
- Efficiency and energy losses in production
- Environmental and regulatory considerations

Day 2: **Storage, Transport, and Safety of Green Hydrogen**

- Physical properties of hydrogen and implications for storage
- Compression and liquefaction technologies
- Metal hydrides and chemical storage options
- Hydrogen transport infrastructure and logistics
- Safety properties: flammability, buoyancy, and detection
- Safety equipment: ventilation, leak detection, and fire suppression
- Regulatory framework: SANS, ISO, and local legislation
- Case studies of hydrogen incidents and lessons learned

Day 3: **Applications, Economics, and Integration of Green Hydrogen**

- Industrial applications: refining, ammonia, steel, and chemicals
- Transport applications: fuel cell vehicles, maritime, and aviation
- Power generation: fuel cells and hydrogen turbines
- Sector coupling: linking renewable energy, hydrogen, and end-use
- Power-to-X: hydrogen derivatives like e-fuels and ammonia
- Cost analysis: CAPEX, OPEX, and levelised cost of hydrogen
- Market development and policy support in South Africa
- Project development: feasibility, site selection, and financing

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 **6 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 13,900.00	**R 13,900.00**
1	In-House	R 18,700.00	**R 18,700.00**
1	On-Campus (Pretoria)	R 20,800.00	**R 20,800.00**

UPCOMING SESSIONS

Start	End	Method	Venue
02 Dec 2026	04 Dec 2026	On-Campus	Durban, South Africa
02 Dec 2026	04 Dec 2026	On-Campus	Lagos, Nigeria
07 Dec 2026	09 Dec 2026	On-Campus	Maseru, Lesotho
07 Dec 2026	09 Dec 2026	On-Campus	Kigali, Rwanda
07 Dec 2026	09 Dec 2026	On-Campus	Accra, Ghana
07 Dec 2026	09 Dec 2026	On-Campus	Cape Town, South Africa
07 Dec 2026	09 Dec 2026	On-Campus	Abu Dhabi, UAE
07 Dec 2026	09 Dec 2026	On-Campus	Victoria Falls, Zimbabwe

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-0540) 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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