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

Hydrogen Safety

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0543 · NQF Level 5 · 4 Credits · 2 Days

COURSE OVERVIEW

This course equips learners with the essential knowledge and skills to work safely with hydrogen, covering its unique properties, associated risks, and control measures. Participants will learn to identify hazards, conduct risk assessments, and implement emergency response procedures, ensuring a safe working environment in accordance with South African health and safety regulations.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0543
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 physical and chemical properties of hydrogen to identify potential hazards and safe handling practices.
- Analyze hydrogen-specific risks in various operational contexts, including storage, transport, and usage.
- Evaluate control measures and safety systems to mitigate hydrogen-related risks in the workplace.
- Demonstrate the correct use of personal protective equipment (PPE) and emergency response procedures for hydrogen incidents.
- Implement hydrogen safety protocols in accordance with relevant South African legislation and international standards.
- Design a basic hydrogen safety plan for a specific workplace scenario, incorporating risk assessment and mitigation strategies.

WHO SHOULD ATTEND

- This course is designed for engineers, technicians, safety officers, and other personnel involved in the production, storage, transport, or use of hydrogen systems.
- It is also suitable for those seeking to enhance their understanding of hydrogen safety in industrial or research settings.

COURSE OUTLINE

Day 1: **Hydrogen Fundamentals and Hazard Awareness**

- Introduction to hydrogen: properties, uses, and the hydrogen economy
- Hydrogen vs. conventional fuels: comparative safety
- Flammability and explosion characteristics: flammability limits, ignition energy, buoyancy
- Asphyxiation risks and confined space hazards
- Material compatibility and hydrogen embrittlement
- Overview of relevant legislation: OHS Act, SANS codes, and industry standards
- Fundamentals of risk assessment and hazard identification
- Case studies: hydrogen incidents and lessons learned

Day 2: **Engineering Controls, Emergency Response, and Operational Safety**

- Storage systems: compressed gas, cryogenic liquid, and metal hydrides
- Ventilation and leak detection systems
- Fire protection: suppression methods, detection, and prevention
- Safe handling and transfer procedures
- Permit-to-work systems and hot work controls
- Emergency response planning: evacuation, firefighting, and rescue
- Personal protective equipment (PPE) for hydrogen operations
- Hydrogen safety in maintenance and repair activities

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-0543) 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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