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

Ex Equipment and Explosion Protection

Custom Courses / Energy, Oil and Gas

Unit Standard AATICD-0445 · NQF Level 5 · 4 Credits · 2 Days

COURSE OVERVIEW

This course provides comprehensive training on the principles and practices of explosion protection in hazardous environments, focusing on the selection, installation, and maintenance of explosion-protected equipment. It equips learners with the knowledge to identify hazardous areas, understand equipment protection concepts, and ensure compliance with relevant regulations and standards.

Category	Custom Courses
Subfield	Energy, Oil and Gas
Unit Standard	AATICD-0445
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 principles of explosion protection to identify and classify hazardous areas.
- Analyze the different types of explosion protection techniques and their applications.
- Evaluate the suitability of explosion-protected equipment for specific hazardous environments.
- Demonstrate the correct procedures for installing and maintaining explosion-protected equipment.
- Implement safety measures to prevent ignition and explosion in hazardous areas.
- Assess compliance with relevant legislation, standards, and codes of practice.

WHO SHOULD ATTEND

- This course is designed for engineers, technicians, safety officers, and maintenance personnel who work with electrical or non-electrical equipment in potentially explosive atmospheres.
- It is also suitable for supervisors and managers responsible for ensuring safety in hazardous areas.

COURSE OUTLINE

Day 1: **Fundamentals of Hazardous Areas and Ex Equipment**

- Introduction to hazardous areas: definitions, examples, and risks.
- Area classification: zones 0, 1, 2 for gases and zones 20, 21, 22 for dusts.
- Ignition sources and the explosion triangle.
- Overview of explosion protection techniques: flameproof, increased safety, intrinsic safety, etc.
- Equipment marking per IEC/EN standards and SANS.
- Introduction to the Occupational Health and Safety Act and relevant regulations.
- Roles and responsibilities of stakeholders (designers, installers, maintainers).

Day 2: **Selection, Installation, Inspection, and Maintenance of Ex Equipment**

- Equipment selection criteria: gas/dust groups, temperature classes, and ambient conditions.
- Installation requirements: cable entries, glands, earthing, and segregation.
- Inspection types: initial, periodic, and sample inspections, and their frequencies.
- Common installation and maintenance errors and how to avoid them.
- Maintenance principles: repair, overhaul, and modification of Ex equipment.
- Documentation requirements: certificates, declarations of conformity, and inspection records.
- Practical case studies of hazardous area incidents 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	Victoria Falls, Zimbabwe
01 Dec 2026	02 Dec 2026	On-Campus	Cape Town, South Africa
02 Dec 2026	03 Dec 2026	On-Campus	Shenzhen, China
02 Dec 2026	03 Dec 2026	On-Campus	Lagos, Nigeria
03 Dec 2026	04 Dec 2026	On-Campus	Durban, South Africa
08 Dec 2026	09 Dec 2026	On-Campus	Maseru, Lesotho
08 Dec 2026	09 Dec 2026	On-Campus	Kigali, Rwanda
08 Dec 2026	09 Dec 2026	On-Campus	Accra, Ghana

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-0445) 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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