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

Pressure Vessel Safety

Custom Courses / Health, Safety and Environment (HSE)

Unit Standard AATICD-0322 · NQF Level 5 · 10 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to safely operate, inspect, and maintain pressure vessels in compliance with South African regulations and international best practices. It focuses on hazard identification, risk assessment, and emergency response to prevent catastrophic failures and ensure workplace safety.

Category	Custom Courses
Subfield	Health, Safety and Environment (HSE)
Unit Standard	AATICD-0322
Accreditation	SAQA Accredited · NQF Level 5 · 10 Credits
Duration	5 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS — verifiable online

LEARNING OUTCOMES

- Apply the principles of pressure vessel design, construction, and operation to ensure safe working practices.
- Analyze potential failure modes and hazards associated with pressure vessels to implement effective control measures.
- Evaluate the requirements of relevant legislation, standards, and codes (e.g., SANS 347, ASME VIII) for compliance.
- Implement inspection, testing, and maintenance procedures to extend vessel life and prevent accidents.
- Demonstrate emergency response procedures for pressure vessel incidents, including pressure relief and isolation.
- Design a risk assessment and safe operating procedure for a pressure vessel system.

WHO SHOULD ATTEND

- This course is designed for engineers, technicians, operators, and safety officers who work with or oversee pressure vessels in industries such as petrochemical, manufacturing, energy, and water treatment.

COURSE OUTLINE

Day 1: Introduction to Pressure Vessels and Regulatory Framework

- What is a pressure vessel? Types and applications
- Overview of the Occupational Health and Safety Act (Act 85 of 1993
- Introduction to SANS 347 and other applicable standards
- Roles of manufacturers, owners, users, and inspectors
- Hazard identification: overpressure, corrosion, fatigue, and human error
- Case studies of pressure vessel incidents
- Introduction to risk assessment principles

Day 2: Design, Materials, and Construction

- Design codes and standards (ASME, PD 5500, SANS
- Design pressure, temperature, and loads
- Material selection: carbon steel, stainless steel, and alloys
- Corrosion allowances and material testing
- Welding processes and qualification of welders
- Non-destructive testing (NDT) methods
- Quality assurance and control in fabrication
- Reading and interpreting vessel drawings and data sheets

Day 3: Inspection, Testing, and Maintenance

- Statutory inspection requirements and frequency
- In-service inspection strategies
- NDT methods: visual, ultrasonic, radiographic, magnetic particle, and dye penetrant
- Hydrostatic testing: procedures and safety precautions
- Pneumatic testing: hazards and controls
- Common degradation mechanisms: corrosion, erosion, cracking
- Maintenance planning and record-keeping
- Fitness-for-service assessment basics

Day 4: Safe Operation and Emergency Procedures

- Operating procedures and limits
- Safety relief valves, rupture discs, and other protective devices
- Pressure and temperature monitoring
- Start-up and shutdown procedures
- Emergency shutdown and isolation
- Hazardous area classification and controls
- Human factors and operator competencies
- Incident reporting and investigation basics

Day 5: Risk Management, Compliance, and Practical Integration

- Risk assessment methodologies (HAZOP, What-If, Checklist
- Pressure vessel integrity management systems (PVIMS
- Legal compliance audits
- Documentation and record-keeping requirements
- Continuous improvement and safety culture
- Review of key course concepts

- Final assessment and feedback

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 **10 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 17,700.00	**R 17,700.00**
1	In-House	R 23,900.00	**R 23,900.00**
1	On-Campus (Pretoria)	R 26,700.00	**R 26,700.00**

UPCOMING SESSIONS

Start	End	Method	Venue
07 Dec 2026	11 Dec 2026	Online	—
07 Dec 2026	11 Dec 2026	On-Campus	Maseru, Lesotho
07 Dec 2026	11 Dec 2026	On-Campus	Kigali, Rwanda
07 Dec 2026	11 Dec 2026	On-Campus	Accra, Ghana
07 Dec 2026	11 Dec 2026	On-Campus	Cape Town, South Africa
07 Dec 2026	11 Dec 2026	On-Campus	Abu Dhabi, UAE
07 Dec 2026	11 Dec 2026	On-Campus	Victoria Falls, Zimbabwe
14 Dec 2026	18 Dec 2026	On-Campus	Mbabane, Eswatini

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-0322) 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.

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 · WhatsApp: +27 65 077 6310 · apply@aaticd.co.za · www.aaticd.co.za