



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

Mechanical Awareness And Crane Operation Fundamentals Training

Physical Planning and Construction / Civil Engineering Construction

Unit Standard 116227 · NQF Level 2 · 5 Credits · 2 Days

COURSE OVERVIEW

This course provides learners with the fundamental knowledge and practical skills required to safely operate cranes and understand basic mechanical systems. It is designed to reduce workplace incidents by ensuring operators are competent in pre-use inspections, load handling, and adherence to safety regulations.

Category	Physical Planning and Construction
Subfield	Civil Engineering Construction
Unit Standard	116227
Accreditation	SAQA Accredited · NQF Level 2 · 5 Credits
Duration	2 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply relevant occupational health and safety legislation and safe operating procedures to crane operations.
- Demonstrate the ability to conduct pre-operational inspections and identify mechanical faults or hazards.
- Implement correct load handling techniques, including slinging, signaling, and load control.
- Analyze load charts and calculate safe working loads for different crane configurations.
- Evaluate environmental factors affecting crane stability and implement appropriate control measures.
- Demonstrate emergency response procedures in the event of equipment failure or incident.

WHO SHOULD ATTEND

- This course is intended for new and existing crane operators, riggers, and supervisors who require a foundational understanding of crane operations and mechanical awareness in industrial or construction environments.

COURSE OUTLINE

Day 1: Mechanical Fundamentals and Pre-Operational Safety

- Introduction to crane types and mechanical components.
- Principles of load stability, centre of gravity, and leverage.
- Pre-operational inspection: wire ropes, hooks, brakes, and controls.
- OHSA regulations, safety signs, and personal protective equipment.
- Load chart interpretation and rated capacity.
- Hand signals and communication protocols.
- Site hazards: power lines, ground conditions, and weather.
- Practical exercise: pre-start inspection checklist.

Day 2: Crane Operations and Practical Application

- Operating controls: hoist, slew, luff, and travel functions.
- Safe lifting techniques: smooth starts, stops, and load positioning.
- Slings and rigging: types of slings, hitches, and angles.
- Load handling in confined spaces and uneven terrain.
- Emergency procedures: power failure, load swing, and wind conditions.
- Post-operational shutdown: parking, securing, and daily maintenance.
- Practical assessment: simulated lift operation and rigging exercise.
- Review of unit standard outcomes and Q&A.;

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 **5 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 15,400.00	R 15,400.00
1	In-House	R 20,000.00	R 20,000.00
1	On-Campus (Pretoria)	R 23,100.00	R 23,100.00

UPCOMING SESSIONS

Start	End	Method	Venue
04 Aug 2026	05 Aug 2026	On-Campus	Pretoria, South Africa
04 Aug 2026	05 Aug 2026	On-Campus	Cape Town, South Africa
04 Aug 2026	05 Aug 2026	On-Campus	Johannesburg, South Africa
06 Aug 2026	07 Aug 2026	On-Campus	Dubai, UAE
06 Aug 2026	07 Aug 2026	On-Campus	Mauritius
06 Aug 2026	07 Aug 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	11 Aug 2026	On-Campus	Mauritius
10 Aug 2026	11 Aug 2026	On-Campus	Dubai, UAE

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 116227) and click **Get A Quote / Apply**. 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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