



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@aatikd.co.za · Website: www.aatikd.co.za

COURSE BROCHURE

Articulated Dump Truck Operation And Safety Training

Physical Planning and Construction / Civil Engineering Construction

Unit Standard 116330 · NQF Level 2 · 16 Credits · 13 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to operate articulated dump trucks safely and efficiently in mining, construction, and quarry environments. It covers pre-use inspections, load handling, haul road procedures, and emergency protocols to minimize risks and ensure compliance with South African health and safety regulations.

Category	Physical Planning and Construction
Subfield	Civil Engineering Construction
Unit Standard	116330
Accreditation	SAQA Accredited · NQF Level 2 · 16 Credits
Duration	13 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate pre-use inspection procedures and identify defects or safety hazards on articulated dump trucks.
- Apply safe operating techniques for loading, hauling, and dumping materials on varying terrains and gradients.
- Analyze haul road conditions and implement corrective actions to maintain safe travel surfaces.
- Implement emergency shutdown and evacuation procedures in the event of equipment malfunction or site hazards.
- Evaluate load stability and distribution to prevent rollovers and material spillage during transport.
- Comply with relevant South African mine health and safety legislation and site-specific safety protocols.

WHO SHOULD ATTEND

- This course is for new and experienced operators of articulated dump trucks, as well as supervisors and safety officers responsible for earthmoving operations in the mining, construction, and civil engineering sectors.

COURSE OUTLINE

Day 1: Introduction to Articulated Dump Trucks and Legislative Framework

- Course overview and introduction to unit standard 116330.
- Overview of ADT types, manufacturers, and common models.
- Legislative framework: MHSA, OHS Act, and SANS codes.
- Operator duties, rights, and legal liabilities.
- Basic terminology: payload, dump angle, articulation, oscillation.
- Site safety induction and hazard awareness.

Day 2: Pre-Operational Checks and Daily Inspections

- Walk-around inspection procedure.
- Checking engine oil, coolant, hydraulic fluid, and fuel.
- Tire condition, pressure, and tread depth.
- Brake system inspection: service and parking brakes.
- Steering and articulation joint checks.
- Electrical systems: lights, indicators, backup alarms.
- Documentation: defect reporting and maintenance logs.

Day 3: Controls, Instruments, and Cab Ergonomics

- Cab layout: primary and secondary controls.
- Instrument panel: speedometer, tachometer, temperature, pressure gauges.
- Warning systems: alarms, indicators, and diagnostic displays.
- Seat adjustment, seatbelt use, and ergonomic setup.
- Engine start procedure: pre-heat, start, idle check.
- Shut-down procedure: cool-down, park brake, isolation.

Day 4: Basic Driving Techniques and Machine Handling

- Driving posture and hand positioning.
- Gear selection: automatic vs manual modes.
- Braking techniques: service brake, retarder, exhaust brake.
- Steering in a straight line and gentle curves.
- Articulation joint operation and oscillation effects.
- Practice session on a controlled flat course.

Day 5: Loading Procedures and Payload Management

- Loading area safety: spotter roles and exclusion zones.
- Positioning for excavator or wheel loader loading.
- Load distribution: center of gravity and body placement.
- Payload monitoring: on-board weighing systems.
- Overload prevention and consequences.
- Communication protocols: hand signals, two-way radio.

Day 6: Hauling and Dumping Techniques

- Hauling on level and inclined roads.
- Speed management and following distances.
- Dumping area safety: back-up alarms, spotters.
- Dump sequence: stop, park brake, hoist up, dump.

- Body lowering procedure and tailgate release.
- Dumping on uneven ground and soft surfaces.

Day 7: Operating on Slopes and Rough Terrain

- Slope stability principles and rollover risks.
- Uphill driving: gear selection and momentum.
- Downhill driving: retarder use and brake management.
- Side slope operation: articulation and oscillation.
- Crossing uneven ground: ruts, rocks, and soft spots.
- Emergency procedures on slopes.

Day 8: Loading and Hauling Cycle Optimization

- Cycle time components: load, haul, dump, return.
- Queue management and loading zone etiquette.
- Fuel-efficient driving: throttle control, gear selection.
- Road maintenance: grading, watering, and signage.
- Productivity tracking: load counts and tonnage.
- Shift change procedures and handover.

Day 9: Loading and Hauling Cycle Optimization

- Cycle time components: load, haul, dump, return.
- Queue management and loading zone etiquette.
- Fuel-efficient driving: throttle control, gear selection.
- Road maintenance: grading, watering, and signage.
- Productivity tracking: load counts and tonnage.
- Shift change procedures and handover.

Day 10: Emergency Procedures and Hazard Response

- Types of emergencies in ADT operations.
- Emergency shutdown: engine stop, park brake, isolation.
- Fire prevention and firefighting: extinguisher types and use.
- Brake failure: use of emergency brakes and retarder.
- Tire blowout: steering control and stopping.
- Rollover prevention and post-rollover actions.
- Tip face collapse: escape routes and rescue.

Day 11: Loading and Hauling Cycle Optimization

- Cycle time components: load, haul, dump, return.
- Queue management and loading zone etiquette.
- Fuel-efficient driving: throttle control, gear selection.
- Road maintenance: grading, watering, and signage.
- Productivity tracking: load counts and tonnage.
- Shift change procedures and handover.

Day 12: Practical Assessment Preparation and Review

- Comprehensive review of key topics.
- Hands-on practice circuits: pre-start, haul, dump.
- Simulated loading and dumping scenarios.
- Q&A; session on difficult concepts.

- Feedback on individual performance.
- Assessment criteria and expectations.

Day 13: Final Assessment and Course Closure

- Practical assessment: pre-start, driving, loading, dumping.
- Theoretical assessment: written or oral test.
- Results and feedback session.
- Issuance of certificates and logbooks.
- Course evaluation and improvement suggestions.
- Career pathways and further training opportunities.

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 **16 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 43,500.00	R 43,500.00
1	In-House	R 56,600.00	R 56,600.00
1	On-Campus (Pretoria)	R 65,200.00	R 65,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
07 Aug 2026	25 Aug 2026	On-Campus	Pretoria, South Africa
07 Aug 2026	25 Aug 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	26 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	26 Aug 2026	On-Campus	Mauritius
11 Aug 2026	27 Aug 2026	On-Campus	Cape Town, South Africa
12 Aug 2026	28 Aug 2026	On-Campus	Dubai, UAE
13 Aug 2026	31 Aug 2026	On-Campus	Pretoria, South Africa
14 Aug 2026	01 Sep 2026	On-Campus	Abu Dhabi, 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 116330) 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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