



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

Face Shovel Operation And Safety Training

Physical Planning and Construction / Civil Engineering Construction

Unit Standard 116054 · NQF Level 2 · 24 Credits · 21 Days

COURSE OVERVIEW

This course equips learners with the knowledge and practical skills required to operate a face shovel safely and efficiently in mining and construction environments. It covers pre-operational checks, operational techniques, and safety procedures to minimize risks and ensure compliance with South African mining regulations.

Category	Physical Planning and Construction
Subfield	Civil Engineering Construction
Unit Standard	116054
Accreditation	SAQA Accredited · NQF Level 2 · 24 Credits
Duration	21 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate knowledge of face shovel components, controls, and safety features.
- Apply pre-operational inspection procedures to ensure machine readiness.
- Perform safe starting, maneuvering, and shutdown of the face shovel.
- Analyze ground conditions and load characteristics to optimize digging efficiency.
- Implement correct loading and dumping techniques to prevent accidents and equipment damage.
- Evaluate and respond to operational hazards and emergency situations.

WHO SHOULD ATTEND

- This course is designed for machine operators, mining personnel, and construction workers who need to operate face shovels as part of their duties.

COURSE OUTLINE

Day 1: Introduction to Face Shovel Operations and Safety

- Overview of face shovel equipment and uses.
- Main components: boom, stick, bucket, cab, undercarriage.
- Basic principles of hydraulic systems.
- Introduction to safety culture and legal requirements.
- Course outcomes and unit standard 116054 alignment.

Day 2: Health, Safety, and Environmental Legislation

- MHSA and OHS Act provisions relevant to earthmoving.
- Duties of operators and supervisors.
- Environmental care: dust, spillage, noise control.
- Safety files, risk assessments, and toolbox talks.
- Incident reporting and investigation basics.

Day 3: Personal Protective Equipment and Site Safety

- PPE types: hard hats, high-vis clothing, steel-toed boots, gloves, hearing protection.
- Inspection and care of PPE.
- Hazard identification: unstable ground, overhead power lines, other equipment.
- Emergency response: fire, first aid, spill containment.
- Housekeeping: maintaining clear access and egress.

Day 4: Pre-Operational Checks and Daily Inspections

- Walk-around inspection procedure.
- Engine compartment checks: oil, coolant, fuel, hydraulic fluid.
- Undercarriage and track tension.
- Cab controls, gauges, and safety interlocks.
- Logbook entries and defect reporting.

Day 5: Machine Controls and Basic Operation

- Joysticks, pedals, switches, and display panels.
- Engine start-up procedure and warm-up.
- Travel controls: forward, reverse, turning.
- Braking systems and parking brake.
- Cab ergonomics and seat adjustment.

Day 6: Bucket and Hydraulic System Fundamentals

- Hydraulic pumps, valves, cylinders, and filters.
- Bucket designs: general purpose, rock, heavy-duty.
- Crowd and hoist cylinder functions.
- Dump and retract operations.
- Hydraulic oil checks and contamination prevention.

Day 7: Digging Techniques and Material Handling

- Digging angles and depth control.
- Material types: loose soil, hard rock, blasted rock.
- Bucket fill techniques: penetration, curl, lift.
- Swing and dump coordination.

- Load profiling for truck loading.

Day 8: Loading and Dumping Operations

- Spotting for truck loading.
- Communication with haul truck drivers.
- Dumping techniques: controlled release, even spread.
- Weight monitoring and payload indicators.
- Safety around dump points and tip areas.

Day 9: Working on Slopes and Uneven Terrain

- Slope angle limits and stability factors.
- Traveling uphill and downhill.
- Digging on slopes: benching and terracing.
- Ground bearing capacity and compaction.
- Level indicators and grade control systems.

Day 10: Face Shovel in Quarry and Open-Pit Mining

- Quarry layout: benches, ramps, and haul roads.
- High-wall safety: scaling, bunding, barriers.
- Loading blasted rock: digging patterns.
- Selective mining and blending.
- Cleanup operations: floor maintenance.

Day 11: Advanced Digging Strategies and Productivity

- Penetration techniques for hard ground.
- Using boom float and crowd assist.
- Power mode selection: economy vs. performance.
- Fuel-saving practices: idle reduction, efficient loading.
- Cycle time analysis: dig, swing, dump, return.

Day 12: Maintenance and Lubrication Procedures

- Daily and weekly maintenance checklists.
- Grease points: pins, bushings, bearings.
- Engine oil and filter change procedures.
- Hydraulic and transmission fluid checks.
- Undercarriage maintenance: track adjustment, sprockets.

Day 13: Troubleshooting Common Mechanical Issues

- Engine issues: overheating, low power, excessive smoke.
- Hydraulic problems: slow operation, leaks, noise.
- Electrical faults: battery, alternator, sensors.
- Undercarriage wear patterns and alignment.
- Fault code retrieval and interpretation.

Day 14: Emergency Procedures and Risk Management

- Emergency stop procedures.
- Fire types and extinguisher use.
- First aid for common injuries: cuts, fractures, burns.
- Risk assessment methodology: JSA, HIRA.
- Emergency drills and simulation.

Day 15: Communication and Teamwork on Site

- Hand signals for face shovel operations.
- Two-way radio etiquette and channel discipline.
- Working with dozers, graders, and trucks.
- Role of spotter in tight areas.
- Team safety briefings and debriefings.

Day 16: Environmental Management and Rehabilitation

- Dust suppression techniques: water sprays, covers.
- Noise reduction: mufflers, enclosures, scheduling.
- Spill response: containment and cleanup.
- Waste segregation: oil, filters, scrap metal.
- Rehabilitation: topsoil management, recontouring.

Day 17: Simulator Training and Skill Refinement

- Simulator introduction and controls.
- Basic digging and loading exercises.
- Advanced scenarios: slope work, tight spaces.
- Emergency scenarios: fire, hydraulic failure.
- Performance review and debrief.

Day 18: Practical Assessment Preparation

- Full machine inspection.
- Start-up and shutdown procedures.
- Digging and loading cycles.
- Communication with team.
- Mock assessment with feedback.

Day 19: Final Practical Assessment

- Assessor observation of pre-start checks.
- Operating skills: travel, digging, loading.
- Safety compliance: PPE, procedures, communication.
- Knowledge assessment: oral or written questions.
- Feedback and results.

Day 20: Course Review and Certification

- Summary of course content.
- Q&A; session.
- Evaluation forms and feedback.
- Certificate issuance.
- Continued professional development and refresher training.

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 **24 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 64,000.00	R 64,000.00
1	In-House	R 83,200.00	R 83,200.00
1	On-Campus (Pretoria)	R 96,000.00	R 96,000.00

UPCOMING SESSIONS

Start	End	Method	Venue
31 Jul 2026	28 Aug 2026	On-Campus	Mauritius
03 Aug 2026	31 Aug 2026	On-Campus	Dubai, UAE
04 Aug 2026	01 Sep 2026	On-Campus	Pretoria, South Africa
04 Aug 2026	01 Sep 2026	On-Campus	Lagos, Nigeria
05 Aug 2026	02 Sep 2026	On-Campus	Johannesburg, South Africa
06 Aug 2026	03 Sep 2026	On-Campus	Mauritius
07 Aug 2026	04 Sep 2026	On-Campus	Cape Town, South Africa
10 Aug 2026	07 Sep 2026	On-Campus	Pretoria, South Africa

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 116054) 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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