



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

Surface Mining Processes And Layouts Fundamentals Training

Manufacturing, Engineering and Technology / Fabrication and Extraction

Unit Standard 110194 · NQF Level 1 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips learners with a foundational understanding of surface mining processes, equipment, and site layouts. It focuses on the principles of safe and efficient mining operations, including drilling, blasting, loading, hauling, and material handling. Learners will gain the ability to interpret mine plans and layouts, ensuring compliance with South African mining regulations and safety standards.

Category	Manufacturing, Engineering and Technology
Subfield	Fabrication and Extraction
Unit Standard	110194
Accreditation	SAQA Accredited · NQF Level 1 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate knowledge of surface mining methods, including open-pit and strip mining.
- Apply safety principles and hazard identification to surface mining operations.
- Analyze mine layouts and explain the function of key operational zones.
- Evaluate the roles of equipment such as draglines, shovels, and haul trucks in the mining cycle.
- Interpret basic mine plans and diagrams to identify infrastructure and material flow.
- Implement environmental control measures in accordance with legislative requirements.

WHO SHOULD ATTEND

- This course is designed for entry-level mining personnel, shift supervisors, and support staff working in or entering the surface mining industry.
- It is also suitable for engineers and technicians seeking to broaden their understanding of surface mining fundamentals.

COURSE OUTLINE

Day 1: Introduction to Surface Mining and Geological Foundations

- Overview of surface mining: definitions, advantages, and limitations.
- Types of surface mining: open-pit, strip mining, quarrying, and mountaintop removal.
- Geological considerations: ore body characteristics, overburden, and waste rock.
- Mine layout fundamentals: pit limits, benches, ramps, and haul roads.
- Introduction to mine planning and design phases.
- Environmental and safety regulations in South Africa.

Day 2: Mining Processes and Equipment

- Mining cycle: drilling, blasting, loading, hauling, and dumping.
- Drilling techniques and blast design basics.
- Loading equipment: shovels, excavators, and loaders.
- Haulage systems: trucks, conveyors, and in-pit crushing.
- Material handling and stockpile management.
- Introduction to mine dewatering and drainage systems.
- Safety considerations in equipment operation.

Day 3: Mine Planning, Operations, and Practical Integration

- Short-term and long-term mine planning.
- Waste management: overburden removal, stockpiling, and backfilling.
- Mine closure and rehabilitation planning.
- Operational KPIs: productivity, costs, and safety metrics.
- Case studies of South African surface mines.
- Integration of practical exercises: mine layout simulation and equipment selection.

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 **6 NQF credits** at **NQF Level 1**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 17,900.00	R 17,900.00
1	In-House	R 23,300.00	R 23,300.00
1	On-Campus (Pretoria)	R 26,800.00	R 26,800.00

UPCOMING SESSIONS

Start	End	Method	Venue
05 Aug 2026	07 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	07 Aug 2026	On-Campus	Mauritius
10 Aug 2026	12 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	12 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	13 Aug 2026	On-Campus	Pretoria, South Africa
11 Aug 2026	13 Aug 2026	On-Campus	Mauritius
12 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE
12 Aug 2026	14 Aug 2026	On-Campus	Cape Town, 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 110194) 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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