



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

Drilling And Blasting Effects On Rock Mass Training

Manufacturing, Engineering and Technology / Fabrication and Extraction

Unit Standard 115683 · NQF Level 3 · 3 Credits · 1 Day

COURSE OVERVIEW

This course equips learners with the knowledge and skills to understand the effects of drilling and blasting on rock mass stability. It covers the principles of rock mechanics, blast design, and the assessment of blast-induced damage to ensure safe and efficient mining operations.

Category	Manufacturing, Engineering and Technology
Subfield	Fabrication and Extraction
Unit Standard	115683
Accreditation	SAQA Accredited · NQF Level 3 · 3 Credits
Duration	1 day
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply principles of rock mechanics to evaluate rock mass behavior under drilling and blasting.
- Analyze blast design parameters to minimize adverse effects on rock mass stability.
- Evaluate blast-induced damage using appropriate monitoring and assessment techniques.
- Implement control measures to mitigate the impact of blasting on surrounding rock structures.
- Demonstrate compliance with relevant safety regulations and best practices in drilling and blasting operations.

WHO SHOULD ATTEND

- This course is designed for mining engineers, blasting supervisors, geotechnical engineers, and rock mechanics practitioners involved in drilling and blasting operations in the mining and quarrying industries.

COURSE OUTLINE

Day 1: Drilling and Blasting Effects on Rock Mass

- Introduction to rock mass properties and drilling techniques.
- Blast mechanics: detonation, shock waves, and fragmentation.
- Rock mass damage mechanisms: overbreak, underbreak, and fractures.
- Blast design parameters: burden, spacing, stemming, and delay timing.
- Monitoring and assessment of blast effects (seismic, vibration, airblast).
- Mitigation strategies: controlled blasting, pre-splitting, and cushion blasting.
- Environmental and safety regulations in South African mining.

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 **3 NQF credits** at **NQF Level 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 12,800.00	R 12,800.00
1	In-House	R 16,600.00	R 16,600.00
1	On-Campus (Pretoria)	R 19,200.00	R 19,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
05 Aug 2026	05 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	05 Aug 2026	On-Campus	Lagos, Nigeria
06 Aug 2026	06 Aug 2026	On-Campus	Johannesburg, South Africa
07 Aug 2026	07 Aug 2026	On-Campus	Mauritius
10 Aug 2026	10 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	11 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	12 Aug 2026	On-Campus	Abu Dhabi, UAE
13 Aug 2026	13 Aug 2026	On-Campus	Mauritius

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 115683) 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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