



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

Backfilling and Compaction Knowledge

Physical Planning and Construction / Civil Engineering Construction

Unit Standard 254059 · NQF Level 2 · 4 Credits · 1 Day

COURSE OVERVIEW

This course equips learners with the knowledge and skills required to safely and effectively perform backfilling and compaction operations in a construction or mining environment. It covers the principles of soil mechanics, compaction equipment, and quality control measures to ensure structural integrity and compliance with industry standards.

Category	Physical Planning and Construction
Subfield	Civil Engineering Construction
Unit Standard	254059
Accreditation	SAQA Accredited · NQF Level 2 · 4 Credits
Duration	1 day
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate knowledge of the principles of backfilling and compaction in construction and mining contexts.
- Identify and select appropriate compaction equipment based on soil type and project requirements.
- Apply safety procedures and hazard controls during backfilling and compaction operations.
- Perform compaction tests and interpret results to ensure compliance with specifications.
- Implement quality control measures to achieve optimal compaction density and stability.
- Evaluate the effects of moisture content and layer thickness on compaction effectiveness.

WHO SHOULD ATTEND

- This course is designed for construction workers, plant operators, and supervisors involved in earthworks, road construction, or mining backfill operations.
- It is also suitable for safety officers and quality control personnel seeking to deepen their understanding of compaction processes.

COURSE OUTLINE

Day 1: Backfilling and Compaction Fundamentals

- Introduction to backfilling: purpose, types (hydraulic, paste, rock fill), and applications.
- Material properties: particle size distribution, moisture content, and cohesion.
- Compaction theory: Proctor test, optimum moisture content, maximum dry density.
- Compaction equipment: vibratory rollers, rammers, plate compactors, and their selection.
- Compaction procedures: lift thickness, number of passes, and overlap.
- Quality control: field density tests (sand cone, nuclear gauge), and compaction specifications.
- Safety considerations for backfilling and compaction operations.
- Environmental and regulatory compliance.

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 **4 NQF credits** at **NQF Level 2**.

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
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	Durban, South Africa
13 Aug 2026	13 Aug 2026	On-Campus	Mauritius
14 Aug 2026	14 Aug 2026	On-Campus	Cape Town, South Africa
17 Aug 2026	17 Aug 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 254059) 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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