



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

Install And Maintain A Below Ground Drainage System Training

Physical Planning and Construction / Building Construction

Unit Standard 119059 · NQF Level 2 · 10 Credits · 7 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to install and maintain below-ground drainage systems in accordance with South African standards and regulations. Participants will learn to select appropriate materials, apply safe installation practices, and perform routine maintenance to ensure system longevity and compliance.

Category	Physical Planning and Construction
Subfield	Building Construction
Unit Standard	119059
Accreditation	SAQA Accredited · NQF Level 2 · 10 Credits
Duration	7 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply relevant regulations and standards to below-ground drainage installation and maintenance.
- Demonstrate correct installation techniques for below-ground drainage systems.
- Analyze drainage system requirements and select appropriate materials and components.
- Implement maintenance procedures to ensure system functionality and compliance.
- Evaluate system performance and identify common faults.
- Apply health and safety protocols during installation and maintenance.

WHO SHOULD ATTEND

- This course is designed for plumbers, construction workers, and maintenance technicians involved in the installation and upkeep of below-ground drainage systems.
- It is also suitable for site supervisors and contractors seeking to enhance their technical competence.

COURSE OUTLINE

Day 1: Introduction to Below Ground Drainage Systems

- Overview of below ground drainage systems
- Health and safety regulations (OHSA, SANS 10400)
- Types of drainage systems: foul water, surface water, combined
- Components: pipes, fittings, gullies, manholes
- Reading and interpreting drainage layout drawings

Day 2: Site Preparation and Excavation

- Setting out drainage lines using profiles and string lines
- Excavation methods: hand digging vs. mechanical excavation
- Trench safety: shoring, sloping, and benching
- Dewatering methods: pumps, sumps, and drainage
- Measuring and verifying trench gradients

Day 3: Pipe Laying and Jointing Techniques

- Pipe materials: PVC, clay, concrete, HDPE
- Bedding materials: sand, gravel, concrete surround
- Jointing methods: solvent weld, push-fit, mechanical
- Laying pipes to gradient using laser or spirit level
- Installing fittings: bends, junctions, adaptors

Day 4: Manholes, Inspection Chambers, and Access Points

- Types of manholes: precast concrete, brick, plastic
- Construction of manhole bases and benching
- Installing step irons and safety features
- Manhole covers and frames: selection and fitting
- Connecting branch drains using junctions and saddles

Day 5: Testing and Commissioning

- Air test procedure using pressure gauge and plugs
- Water test: plugging and filling sections
- Deflection test for flexible pipes
- Leak detection and repair methods
- Backfilling: compaction and material selection
- Surface reinstatement: concrete, asphalt, paving

Day 6: Advanced Applications and Fault Finding

- Fault finding: blockages, misalignment, infiltration
- Grease interceptors, oil separators, and silt traps
- Soakaways and infiltration systems
- Pumping stations: pumps, control panels, alarms
- SuDS: permeable paving, rain gardens, attenuation tanks

Day 7: Practical Integration and Assessment

- Integrated practical exercise: install a drainage network
- Testing and commissioning of the installed system
- Fault finding and corrective action

- Completion of test reports and as-built drawings
- Assessment preparation and review of key concepts

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 **10 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 28,200.00	R 28,200.00
1	In-House	R 36,700.00	R 36,700.00
1	On-Campus (Pretoria)	R 42,300.00	R 42,300.00

UPCOMING SESSIONS

Start	End	Method	Venue
03 Aug 2026	11 Aug 2026	On-Campus	Mauritius
04 Aug 2026	12 Aug 2026	On-Campus	Cape Town, South Africa
05 Aug 2026	13 Aug 2026	On-Campus	Dubai, UAE
06 Aug 2026	14 Aug 2026	On-Campus	Pretoria, South Africa
06 Aug 2026	14 Aug 2026	On-Campus	Lagos, Nigeria
07 Aug 2026	17 Aug 2026	On-Campus	Johannesburg, South Africa
10 Aug 2026	18 Aug 2026	On-Campus	Cape Town, South Africa
11 Aug 2026	19 Aug 2026	On-Campus	Dubai, 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 119059) 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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