



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

Understand And Describe Basic Plumbing Principles Training

Physical Planning and Construction / Building Construction

Unit Standard 119075 · NQF Level 2 · 8 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with foundational knowledge of plumbing principles, including water supply systems, drainage, and fixture installation. It focuses on understanding basic plumbing theory, safety practices, and the application of relevant regulations in a South African context.

Category	Physical Planning and Construction
Subfield	Building Construction
Unit Standard	119075
Accreditation	SAQA Accredited · NQF Level 2 · 8 Credits
Duration	5 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Explain the principles of water supply and distribution systems.
- Identify and describe different types of plumbing fixtures and fittings.
- Apply basic safety procedures and regulations in plumbing work.
- Demonstrate knowledge of drainage and waste disposal systems.
- Interpret simple plumbing diagrams and specifications.
- Describe the role of plumbing in building construction and maintenance.

WHO SHOULD ATTEND

- This course is ideal for aspiring plumbers, construction workers, and maintenance staff who need a basic understanding of plumbing systems.
- It also benefits individuals seeking entry-level qualifications in the plumbing trade.

COURSE OUTLINE

Day 1: Introduction to Plumbing Principles and Safety

- Overview of the plumbing industry and career pathways.
- Occupational Health and Safety (OHS) Act and site safety.
- Personal protective equipment (PPE) and safe work practices.
- Introduction to plumbing materials: pipes, fittings, valves.
- Basic plumbing tools: wrenches, cutters, threaders.
- Principles of water supply: pressure, flow, and backflow prevention.
- Principles of drainage: gravity, venting, and traps.
- Environmental considerations: water conservation and waste management.

Day 2: Water Supply Systems and Installation

- Direct vs. indirect cold water supply systems.
- Pipe sizing and pressure requirements.
- Water meters, stopcocks, and non-return valves.
- Types of hot water systems: geysers, solar, heat pumps.
- Temperature and pressure relief valves.
- Pipe joining methods: compression, soldering, solvent welding.
- Installation of pipework for supply systems.
- Testing for leaks and pressure testing procedures.

Day 3: Sanitary Drainage and Ventilation

- Components of a drainage system: traps, waste pipes, soil pipes.
- Gradient and fall requirements for drainage pipes.
- Pipe materials for drainage: PVC, cast iron, HDPE.
- Drainage fittings: bends, junctions, access points.
- Principles of ventilation: primary and secondary venting.
- Anti-siphonage and ventilation pipe installation.
- Connection to municipal sewer or septic tank.
- Testing drainage systems: water test and smoke test.

Day 4: Fixtures, Fittings, and Appliances

- Types of taps: pillar, mixer, sensor, and thermostatic.
- Valve types: gate, globe, ball, and check valves.
- Toilet installation: pan, cistern, and flushing mechanisms.
- Basin and vanity installation: waste fittings and trap connections.
- Bath and shower installation: mixing valves and showerheads.
- Kitchen sink installation: waste disposal units and taps.
- Geyser installation: mounting, pipe connections, and safety.
- Solar water heater and heat pump basics.

Day 5: Practical Application and Integration

- Practical exercise: install a complete water supply and drainage system for a bathroom.
- Pipework routing and support.
- Connecting fixtures: basin, toilet, and shower.
- Pressure testing and leak detection.
- Commissioning: flushing, checking flow rates.

- Common faults: blockages, leaks, low pressure.
- Basic repairs: replacing washers, clearing blockages.
- Review of unit standard outcomes and assessment preparation.

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 **8 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 23,000.00	R 23,000.00
1	In-House	R 29,900.00	R 29,900.00
1	On-Campus (Pretoria)	R 34,500.00	R 34,500.00

UPCOMING SESSIONS

Start	End	Method	Venue
03 Aug 2026	07 Aug 2026	On-Campus	Pretoria, South Africa
03 Aug 2026	07 Aug 2026	On-Campus	Dubai, UAE
03 Aug 2026	07 Aug 2026	On-Campus	Cape Town, South Africa
03 Aug 2026	07 Aug 2026	On-Campus	Mauritius
03 Aug 2026	07 Aug 2026	On-Campus	Johannesburg, South Africa
03 Aug 2026	07 Aug 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	14 Aug 2026	On-Campus	Mauritius
10 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 119075) 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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