



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 Basic Plumbing Components Training

Physical Planning and Construction / Building Construction

Unit Standard 119064 · NQF Level 1 · 12 Credits · 9 Days

COURSE OVERVIEW

This course equips learners with the fundamental skills to install, maintain, and repair basic plumbing components in residential and commercial settings. It covers the safe use of tools, materials, and techniques while ensuring compliance with relevant health and safety regulations. By the end of the course, participants will be able to perform basic plumbing tasks confidently and competently.

Category	Physical Planning and Construction
Subfield	Building Construction
Unit Standard	119064
Accreditation	SAQA Accredited · NQF Level 1 · 12 Credits
Duration	9 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Identify and select appropriate plumbing materials, tools, and equipment for basic installation and maintenance tasks.
- Install and connect basic plumbing components such as taps, pipes, fittings, and valves according to specifications.
- Apply safety procedures and use personal protective equipment when working with plumbing systems.
- Diagnose and repair common plumbing faults, including leaks, blockages, and pressure issues.
- Perform routine maintenance on plumbing systems to ensure optimal performance and longevity.
- Comply with relevant regulations, standards, and codes of practice for plumbing installations.

COURSE OUTLINE

Day 1: Introduction to Plumbing and Safety

- Overview of plumbing systems and components.
- Health and safety legislation (OHS Act, SANS 10087-1).
- Hazard identification and risk assessment.
- PPE requirements and correct usage.
- Introduction to hand tools: pipe wrenches, cutters, files.
- Introduction to power tools: drills, grinders.
- Material identification: PVC, copper, galvanized steel.
- Safe storage and handling of materials.

Day 2: Pipe Cutting, Joining, and Fittings

- Measuring techniques using tape measures and levels.
- Pipe cutting: hacksaw, pipe cutter, and deburring.
- PVC pipe joining: solvent cement application and curing.
- Copper pipe joining: soldering with flux and propane torch.
- Threaded connections: using dies and thread seal tape.
- Types of fittings: elbows, tees, couplings, reducers.
- Pressure testing joints for leaks.
- Common mistakes and troubleshooting.

Day 3: Water Supply Systems and Pipe Routing

- Water supply system components: mains, meters, stopcocks.
- Backflow prevention devices and regulations.
- Reading plumbing drawings and symbols.
- Pipe routing: avoiding structural elements.
- Installing pipe clips, saddles, and hangers.
- Connecting to water mains: tapping and ferrule installation.
- Installing isolation valves and drain cocks.
- Testing water supply lines for pressure and flow.

Day 4: Drainage and Waste Systems

- Drainage system components: traps, vents, stacks.
- Fall requirements for waste pipes (1:40 to 1:60).
- Installing P-traps and S-traps.
- Connecting toilets, basins, and sinks.
- Vent pipe installation and termination.
- Drainage pipe materials: PVC, cast iron.
- Leak testing with water or smoke.
- Clearing blockages: plungers, augers.

Day 5: Installing Sanitary Fixtures

- Toilet installation: floor flange, wax ring, tank assembly.
- Basin installation: bracket mounting, tap connections.
- Sink installation: undermount, top-mount, and pedestal.
- Connecting supply lines: flexible hoses, shut-off valves.
- Drain assembly: pop-up stoppers, grid wastes.

- Sealing joints: silicone, plumber's putty.
- Adjusting float valves and flush mechanisms.
- Final inspection and operational test.

Day 6: Hot Water Systems and Appliances

- Hot water system types and components.
- Geyser installation: positioning, brackets, safety valve.
- Temperature and pressure relief valve (TPR).
- Piping hot water lines: copper, PEX.
- Insulation requirements for pipes and geyser.
- Washing machine connection: hoses, standpipe, drain.
- Dishwasher connection: supply and drain.
- Testing hot water system for leaks and temperature.

Day 7: Maintenance and Repair of Plumbing Components

- Common fault identification: dripping taps, running toilets.
- Tap maintenance: replacing washers, O-rings, cartridges.
- Toilet repair: flapper valve, fill valve, flush handle.
- Pipe repair: patching, sleeving, re-routing.
- Drain cleaning: plunger, snake, hydro-jetting.
- Clearing blocked traps and vents.
- Maintenance schedules and record keeping.
- Safety precautions during repairs.

Day 8: Advanced Applications and Specialised Systems

- Rainwater harvesting: gutters, downpipes, tanks, filters.
- Greywater systems: diverters, treatment, irrigation.
- Solar water heating: panels, controllers, circulation pumps.
- PEX piping: expansion and crimp methods.
- Push-fit fittings: advantages and limitations.
- Water conservation fixtures: low-flow taps, dual-flush toilets.
- Pressure reducing valves and expansion tanks.
- System integration and compliance with SANS 10400.

Day 9: Practical Assessment and Integration

- Project brief: install supply and drainage for a bathroom.
- Interpreting plumbing drawings and specifications.
- Installing pipework, fixtures, and fittings.
- Pressure testing and leak detection.
- Final adjustments and quality checks.
- Handover: user instructions and maintenance tips.
- Completing assessment tasks per unit standard.
- Review of key concepts and Q&A;

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 **12 NQF credits** at **NQF Level 1**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 33,300.00	R 33,300.00
1	In-House	R 43,300.00	R 43,300.00
1	On-Campus (Pretoria)	R 50,000.00	R 50,000.00

UPCOMING SESSIONS

Start	End	Method	Venue
03 Aug 2026	13 Aug 2026	On-Campus	Mauritius
04 Aug 2026	14 Aug 2026	On-Campus	Cape Town, South Africa
05 Aug 2026	17 Aug 2026	On-Campus	Dubai, UAE
06 Aug 2026	18 Aug 2026	On-Campus	Pretoria, South Africa
06 Aug 2026	18 Aug 2026	On-Campus	Lagos, Nigeria
07 Aug 2026	19 Aug 2026	On-Campus	Johannesburg, South Africa
10 Aug 2026	20 Aug 2026	On-Campus	Cape Town, South Africa
11 Aug 2026	21 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 119064) 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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