



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

Drainage Construction Management For Civil Engineering Projects Training

Physical Planning and Construction / Physical Planning, Design and Management

Unit Standard 113972 · NQF Level 5 · 10 Credits · 7 Days

COURSE OVERVIEW

This course equips civil engineering professionals with the competencies to manage drainage construction projects effectively. Participants will learn to plan, design, and oversee drainage systems that comply with South African regulations and industry standards.

Category	Physical Planning and Construction
Subfield	Physical Planning, Design and Management
Unit Standard	113972
Accreditation	SAQA Accredited · NQF Level 5 · 10 Credits
Duration	7 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply principles of hydrology and hydraulics to drainage design and construction.
- Analyze site conditions and select appropriate drainage construction methods.
- Evaluate drainage system performance against design specifications and standards.
- Design drainage construction plans incorporating environmental and safety considerations.
- Implement quality control measures during drainage construction projects.
- Demonstrate compliance with relevant South African legislation and engineering codes.

WHO SHOULD ATTEND

- Civil engineers, site supervisors, and project managers involved in drainage construction for infrastructure projects such as roads, stormwater systems, and building developments.

COURSE OUTLINE

Day 1: Introduction to Drainage Construction Management

- Overview of drainage in civil engineering
- Relevant legislation, SANS codes, and SAQA unit standards
- Types of drainage systems: surface, subsurface, stormwater
- Key elements of a drainage construction management plan
- Environmental considerations and water management principles
- Roles and responsibilities of the drainage construction manager

Day 2: Site Assessment and Drainage Design Principles

- Site investigation techniques: soil types, permeability, water table
- Hydrological analysis: rainfall data, runoff calculations
- Drainage design fundamentals: gradients, pipe sizing, catchments
- Materials selection: pipes, culverts, geotextiles, aggregates
- Coordination with road, earthworks, and structural designs
- Environmental impact assessment for drainage works

Day 3: Construction Planning and Resource Management

- Work breakdown structure for drainage construction
- Method statements for trenching, pipe laying, and backfilling
- Resource allocation: equipment, materials, and labour planning
- Quality assurance: testing, inspection, and documentation
- Health and safety: trench shoring, traffic management, PPE
- Environmental controls: erosion, sedimentation, and water pollution

Day 4: Installation Techniques for Drainage Systems

- Pipe laying techniques: alignment, gradient, and joint types
- Bedding and haunching materials and methods
- Installation of precast concrete structures
- Construction of drainage channels and culverts
- Geotextile and filter layer installation
- Compaction testing for backfill materials

Day 5: Monitoring, Testing, and Commissioning

- Testing procedures: CCTV inspection, water tightness, flow tests
- Defect identification: settlement, blockages, alignment errors
- Commissioning checklists and documentation
- Handover procedures: as-built drawings, O&M; manuals
- Performance monitoring during defects liability period
- Non-conformance reporting and corrective actions

Day 6: Maintenance and Rehabilitation of Drainage Systems

- Maintenance planning: frequency, resources, and records
- Inspection techniques: visual, CCTV, flow monitoring
- Cleaning methods: jetting, rodding, vacuum extraction
- Rehabilitation methods: relining, patch repair, replacement
- Emergency response procedures for blockages and failures

- Lifecycle cost analysis for drainage assets

Day 7: Integration, Case Studies, and Assessment

- Integrated project management: drainage within overall construction
- Case studies: failures, innovations, and best practices
- Final assessment: written test and practical demonstration
- Reporting: drainage construction management plan summary
- Course review and feedback
- Certification and next steps

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 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 29,600.00	R 29,600.00
1	In-House	R 38,500.00	R 38,500.00
1	On-Campus (Pretoria)	R 44,400.00	R 44,400.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	18 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	18 Aug 2026	On-Campus	Mauritius
11 Aug 2026	19 Aug 2026	On-Campus	Cape Town, South Africa
12 Aug 2026	20 Aug 2026	On-Campus	Dubai, UAE
13 Aug 2026	21 Aug 2026	On-Campus	Pretoria, South Africa
14 Aug 2026	24 Aug 2026	On-Campus	Abu Dhabi, UAE
17 Aug 2026	25 Aug 2026	On-Campus	Shenzhen, China
18 Aug 2026	26 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 113972) 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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